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Section 1

General Information

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General Information

Introduction

Training

Dealers

All U.S. GM Dealers participating in the Center of Learning / GM Service Technical College (STC) Programs can enroll through the Center of Learning website at https://www.centerlearning.com. Within the website, there are individual training paths that are designed to assist in planning the training needs for each individual and their job role. Dealers who have questions about Center of Learning Training should contact the Center of Learning help desk at 1-888-748-2687. The help desk is available Monday through Friday, 8:00 am – 9:00 pm Eastern Standard Time, excluding holidays. For GM Access support, contact the GM Access Help Desk at 1-888-337-1010.

Fleets

GM Fleet customers with GM Warranty In-Shop agreements are able to participate in service technical training through the Center of Learning/GM Service Technical College (STC).

Assistance for GM fleet registered customers using GM STC training is provided by the Center of Learning help desk at 1-888-748-2687. The help desk is available Monday through Friday, 8:00 am–9:00 pm Eastern Standard Time, excluding holidays. For GM Access support, contact the GM Access Help Desk at 1-888-337-1010.

Most GM STC course materials have associated charges.

To purchase authentic GM STC Training Materials, contact the GM Training Materials Headquarters at 1-800-393-4831.

Non-GM Dealer Technicians

Technician training for non-GM dealers is available through ACDelco. This training is for ACDelco PSC and Fleet program members employed in the automotive or truck service industry.

ACDelco courses are available at approved GM STC Training Centers. Availability and schedules can be obtained by calling 1-800-825-5886 (prompt 1) or contact us via the web at www.acdelcotechconnect.com and select the Training tab. Seminars are also offered through the ACDelco Warehouse Distribution channel. Contact your Local ACDelco representative or distributor directly for more information.

Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage (GMC)

5138041

The VIN plate (1) is the legal identifier of the vehicle. The VIN plate is located on the upper left corner of the instrument panel (I/P) and can be seen through the windshield from the outside of the vehicle:

Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Region of Build	1	United States
		7	United States
2	Manufacturer	G	General Motors
		G	Navistar Inc. (7GZ Only)
3	Vehicle Brand/Type	D	GMC Incomplete Truck
		J	GMC Bus (Non School Bus)
		T	GMC Truck
		Z	GMC Incomplete Truck (Navistar Only)

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
4	GVWR/Brake System/Body Style	W	8,001–9,000 lbs/Hydraulic/CargoVan/Four Door Cab/ Utility or Passenger Van
		Y	8,001–9,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		Z	9,001–10,000 lbs/Hydraulic/CargoVan/Four Door Cab/ Utility or Passenger Van
		0	9,001–10,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		3	10,001–14,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		6	14,001–16,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
5–6	Chassis/Series	7/A	GMC Savana, 2500 Cargo
		7/B	GMC Savana, 2500 Cargo EXT
		7/E	GMC Savana, 2500 Passenger LS
		7/F	GMC Savana, 2500 Passenger LT
		7/G	GMC Savana, 3500 Cargo
		7/H	GMC Savana, 3500 Cargo EXT
		7/L	GMC Savana, 3500 Passenger LS
		7/M	GMC Savana, 3500 Passenger LT
		7/N	GMC Savana, 3500 Passenger LS EXT
		7/P	GMC Savana, 3500 Passenger LT EXT
		7/R	GMC Savana, 3500 Cutaway 139" Wheelbase
		7/S	GMC Savana, 3500 Cutaway 159" Wheelbase
		7/T	GMC Savana, 3500 Cutaway 177" Wheelbase
		7/U	GMC Savana, 4500 Cutaway 159" Wheelbase
		7/V	GMC Savana, 4500 Cutaway 177" Wheelbase
		7/9	GMC Savana (Non-US, Non-Canada)
7	Restraint System	B	AJ3 − Active Manual Belts, Airbag − Driver only − Front
		C	AK5 − Active Manual Belts, Airbag – Driver and Passenger – Front (1st row)
		F	AK5 & ASF − Active Manual Belts, Airbags - Driver & Passenger - Front (1st row), Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
		H	AJ3 & ASF — Active Manual belts, Airbag - Driver only - Front, Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
8	Engine Type	P	RPO LV1 – Engine Gas, 6 CYL, 4.3L, SIDI, V6, VVT, E85 MAX, Iron
		7	L8T - ENGINE GAS, 8 CYL, 6.6L, SIDI, VVT, CAST IRON
9	Check Digit	—	Check Digit
10	Model Year	R	2024
11	Plant Location	1	Wentzville
		N	Springfield

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
12–17	Plant Sequence Number	—	Plant Sequence Number

4.3L RPO LV1 Engine ID and VIN Derivative Location

Engine Identification

6.6L RPO L8T Engine ID and VIN Derivative Location

Engine Identification

8L90 (M5U) Transmission ID and VIN Derivative Location

Transmission Identification Information

Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage (Chevrolet)

5138041

The VIN plate (1) is the legal identifier of the vehicle. The VIN plate is located on the upper left corner of the instrument panel (I/P) and can be seen through the windshield from the outside of the vehicle:

Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Region of Build	1	United States
2	Manufacturer	G	General Motors
		H	Navistar Inc.
3	Vehicle Brand/Type	A	Chevrolet Bus (Non School Bus)
		B	Chevrolet Incomplete Truck
		C	Chevrolet Truck
		A	Chevrolet Incomplete Truck (Navistar Only)
4	GVWR/Brake System/Body Style	W	8,001–9,000 lbs/Hydraulic/Cargo Van/Four Door Cab/ Utility or Passenger Van
		Y	8,001–9,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		Z	9,001–10,000 lbs/Hydraulic/Cargo Van/Four Door Cab/ Utility or Passenger Van
		0	9,001–10,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		3	10,001–14,000 lbs/HydraulicCommercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		6	14,001–16,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
5–6	Chassis/Series	G/A	Chevrolet Express, 2500 Cargo
		G/B	Chevrolet Express, 2500 Cargo EXT
		G/E	Chevrolet Express, 2500 Passenger LS
		G/F	Chevrolet Express, 2500 Passenger LT
		G/G	Chevrolet Express, 3500 Cargo
		G/H	Chevrolet Express, 3500 Cargo EXT
		G/L	Chevrolet Express, 3500 Passenger LS
		G/M	Chevrolet Express, 3500 Passenger LT
		G/N	Chevrolet Express, 3500 Passenger LS EXT
		G/P	Chevrolet Express, 3500 Passenger LT EXT
		G/R	Chevrolet Express, 3500 Cutaway 139" Wheelbase
		G/S	Chevrolet Express, 3500 Cutaway 159" Wheelbase
		G/T	4x2, Chevrolet Express, 3500 Cutaway 177" Wheelbase
		G/U	Chevrolet Express, 4500 Cutaway 159" Wheelbase
		G/V	Chevrolet Express, 4500 Cutaway 177" Wheelbase
		G/9	Chevrolet Express (Non-US, Non-Canada)

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
7	Restraint System	B	AJ3 − Active Manual Belts, Airbag − Driver only − Front
		C	AK5 − Active Manual Belts, Airbag-Driver & Passenger-Front – Front (1st row)
		F	AK5 & ASF − Active Manual Belts, Airbags - Driver & Passenger - Front (1st row), Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
		H	AJ3 & ASF - Active Manual Belts, Airbag - Driver only - Front, Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
8	Engine Type	P	RPO LV1 – Engine Gas, 6 CYL, 4.3L, SIDI, V6, VVT, E85 MAX, Iron
		7	L8T - ENGINE GAS, 8 CYL, 6.6L, SIDI, VVT, CAST IRON
9	Check Digit	—	Check Digit
10	Model Year	R	2024
11	Plant Location	1	Wentzville
		N	Springfield
12–17	Plant Sequence Number	—	Plant Sequence Number

4.3L RPO LV1 Engine ID and VIN Derivative Location

Engine Identification

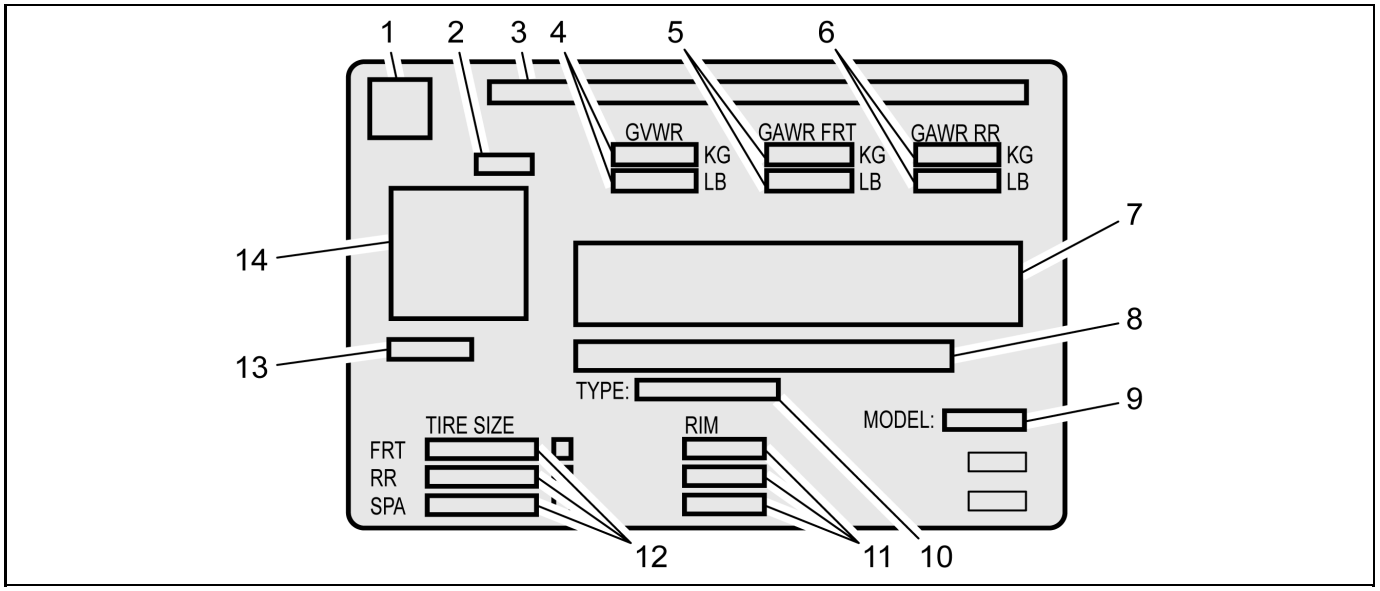
6.6L RPO L8T Engine ID and VIN Derivative Location

Engine Identification

8L90 (M5U) Transmission ID and VIN Derivative Location

Transmission Identification Information

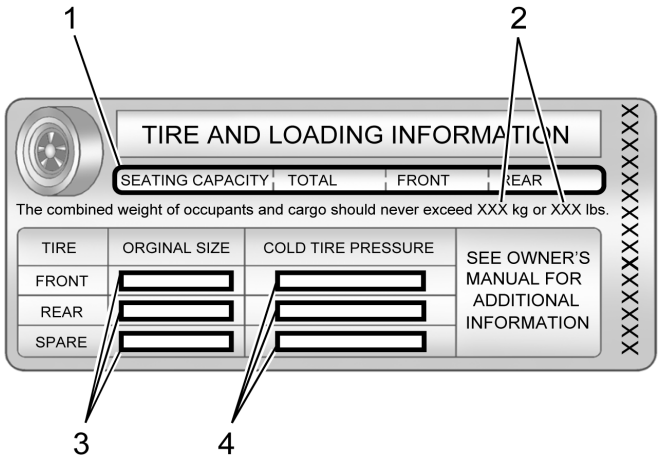
Vehicle Certification, Tire Placard, and Anti-Theft Label



4992823

Vehicle Certification Label

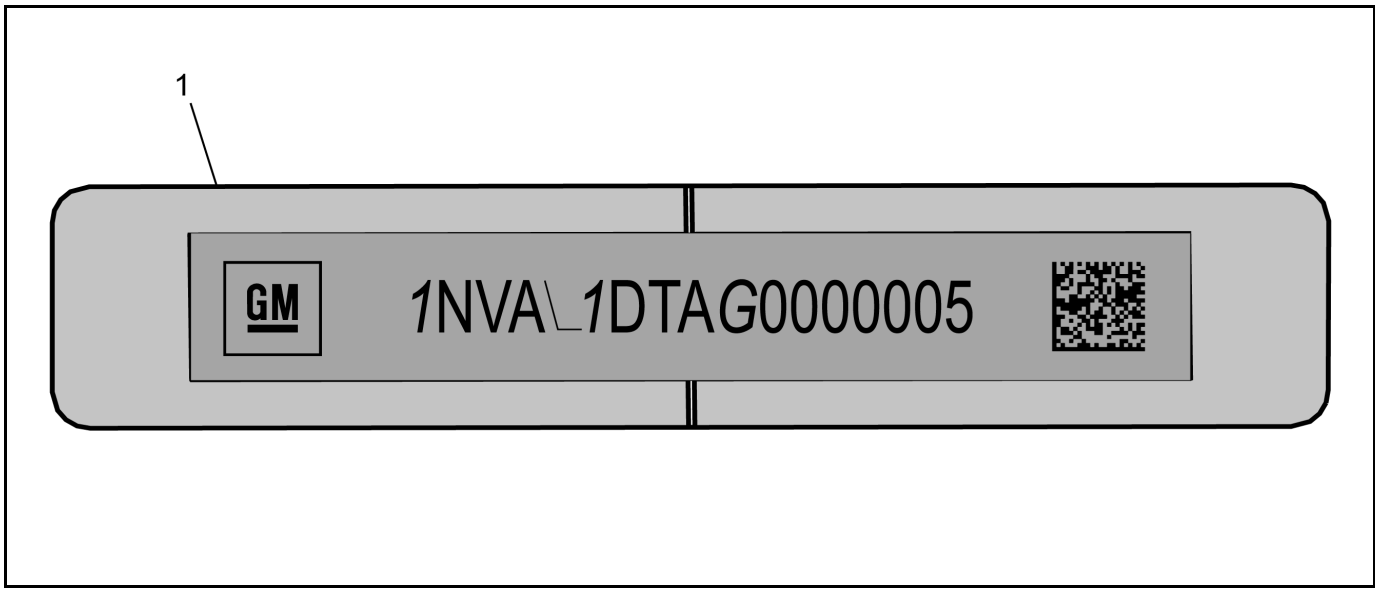
Callout	Description
A vehicle-specific Certification label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Logo
2	Final Date of Manufacture (Month and Year MM/YY) Date of manufacture is to reflect the date that the vehicle is counted as built. In those cases where a replacement label is needed, the replacement label should reflect the actual build date not the date of replacement.
3	Name of Manufacturer
4	Maximum Gross Vehicle Weight Rating (GVWR)
5	Maximum Gross Axle Weight Rating (GAWR) - Front
6	Maximum Gross Axle Weight Rating (GAWR) - Rear
7	Certification Statement
8	Vehicle Identification Number (VIN)
9	Engineering Model Number
10	Vehicle Class Type (Pass Car, etc.)
11	Original Equipment Rim Size
12	Original Equipment Tire Size
13	Paint Code
14	QR Code Once the QR code is scanned, the information will appear in this order on your smartphone or laptop: VIN, Model Year, Model, Build Month, Year, Engineering Book, Vehicle Order Number, 3 Digit RPO Codes sorted alphanumerically and the Paint Code (same code appears the lower left of the QR code)



4962282

Tire Placard

Callout	Description
A vehicle-specific Tire and Loading Information label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Specified Occupant Seating Positions
2	Maximum Vehicle Capacity Weight
3	Original Equipment Tire Size
4	Tire Pressure, Front, Rear, and Spare (Cold)



4962289

Anti-Theft Label

Callout	Description
This legal identifier is in the front corner of the instrument panel, on the driver side of the vehicle. It can be seen through the windshield from outside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification and certificates of title and registration.	
1	Vehicle Identification Number (VIN)

RPO Code List

The following table provides the description of the Regular Production Option (RPO) codes that are available on the vehicle. The vehicle's RPO list is printed on the Service Parts Identification Label.

RPO	Description
01U	PRIMARY COLOR - EXTERIOR, SPECIAL (02)
40P	WHEEL COLOR - WHITE (91)
52G	TRIM COMBINATION - CLOTH, MED NEUTRAL II (G) (00)
52I	INTERIOR TRIM - MED NEUTRAL II (I) (96)
52W	TRIM COMBINATION - VINYL, MED NEUTRAL II (W) (00)
5AZ	ACCESSORY - SAFETY KIT - UNIVERSAL
5C6	HOOK - CARGO TIE-DN
77S	LABEL, REGULATORY - CALIFORNIA, SECTION 177 STATES

RPO	Description
93G	TRIM COMBINATION - CLOTH, MED DK PEWTER II (G) (03) (GMT610 - "G" VAN)
93I	INTERIOR TRIM - MED DK PEWTER II (03) (GMT610 - "G" VAN)
93W	TRIM COMBINATION - VINYL, MED DK PEWTER II (W) (03) (GMT610 - "G" VAN)
9EL	GOVERNOR - VEHICLE TOP SPEED LIMIT - 95 MPH
9L7	EQUIPMENT - ACSRY WRG JUNC BLK
A07	WINDOW - BODY
A08	WINDOW - BODY, RH
A12	WINDOW RR - DR, STA
A13	WINDOW SIDE DR - RR, STA
A17	WINDOW SIDE BODY - SWING OUT, LH
A18	WINDOW RR - DR, SWING OUT
A19	WINDOW SIDE DR - RR, SWING OUT

RPO	Description
A31	WINDOW - POWER OPERATED, ALL DOORS
AG1	ADJUSTER FRT ST - POWER, MULTI-DIRECTIONAL, DRIVER
AG2	ADJUSTER PASS ST - POWER, MULTI-DIRECTIONAL
AJ1	WINDOW TINTED - DEEP, ALL EXCEPT W/ S AND DRS
AJ3	RESTRAINT SYSTEM - SEAT, INFLATABLE, DRIVER, FRT
AJW	WINDOW STYLE - LAMINATED
AK5	RESTRAINT SYSTEM - SEAT, INFLATABLE, DRIVER & PASS FRT
ANC	SALES PACKAGE - SHUTTLE BUS
AR7	SEAT - FRT BKT, STANDARD
AS5	SEAT - FRT BKT, DELUXE,
ASB	EQUIPMENT - SECURITY BAR, REAR SIDE DOOR
ASF	RESTRAINT - ROOF SIDE (LH & RH), SEAT SIDE (FRONT 1ST ROW), INFLATABLE
AT8	RESTRAINT PROVISIONS - CHILD, RR SEAT, RR FACING
ATG	LOCK CONTROL, ENTRY - REMOTE ENTRY, STANDARD RANGE
AU3	LOCK CONTROL - SIDE DR, ELEC
AXK	VEHICLE TYPE - TRUCK
AXW	VEHICLE TYPE - BUS- (NOT SCHOOL BUS)
B30	COVERING FLOOR - CARPET
B31	COVERING FLOOR - VINYL, FRT, FULL WIDTH
B32	COVERING FRT - FLOOR MATS, AUX
B33	COVERING REAR - FLOOR MATS, AUX
B38	COVERING FLOOR - VINYL, FRT & RR, FULL WIDTH
B3D	SALES PACKAGE - SCHOOL BUS
BA0	ORNAMENTATION - EXTR, DOOR, NAMEPLATE
BA3	COMPARTMENT - STOWAGE, I/P LOWER EXTENSION DELUXE
BAG	PARTS PKG - EXPORT
BNC	PARTS PKG - BODY MOUNT CUSHIONS
BTV	REMOTE START - VEHICLE
BUE	KIT - EXHAUST DIESEL
C36	HEATER - AUXILIARY
C42	HVAC SYSTEM - HEATER, OUTSIDE AIR, DELUXE
C49	DEFOGGER - RR WINDOW, ELECTRIC
C4K	GVW RATING - 9,925 LBS
C4M	GVW RATING - 9,900 LBS/4,500 KG
C60	HVAC SYSTEM - AIR CONDITIONER FRT, MAN CONTROLS
C69	HVAC SYSTEM RR - AIR CONDITIONER

RPO	Description
C6P	GVW RATING - 8,600 LBS/3,900 KG
C6Y	GVW RATING - 9,600 LBS
C7I	GVW RATING - 14,200 LBS.
C7N	GVW RATING - 12,300 LBS
C99	SWITCH - INFL RST I/P MDL MAN SUPPRESSION
CGN	LINER - PUBX, SPRAY ON
CK2	COUNTRY - YEMEN
CU7	COUNTRY - KUWAIT
CV3	COUNTRY - MEXICO
CV4	COUNTRY - ISRAEL
CV8	COUNTRY - IRAQ
CX9	COUNTRY - LEBANON
CY2	COUNTRY - JORDAN
D28	MIRROR O/S - (-NONE)
D31	MIRROR I/S R/V - TILT
D3S	COUNTRY - QATAR
D4C	COUNTRY - BAHRAIN
DAA	SUNSHADE - VINYL
DE5	MIRROR O/S - LH & RH, REMOTE CONTROL, ELECTRIC, HEATED, FOLDING, COLOR.
DH6	MIRROR I/S FRT VAN - LH & RH, SUNSHADE, ILLUM
DHC	MIRROR O/S - LH & RH, MANUAL CONTROL, AUX WFOV, COLOR
DNS	EQUIPMENT - SUPPLIER INSTALLED
DRJ	MIRROR I/S R/V - TILT, PARTIAL VIDEO DISPLAY
DSB	EQUIPMENT - SECURITY BAR DELETE, REAR SIDE DOOR
E24	DOOR SIDE - REAR, HINGED
E48	COVER - RADIATOR GRILLE OPG - COLD CLIMATE
E6H	COUNTRY - OMAN
EF7	COUNTRY - UNITED STATES OF AMERICA (USA)
ENC	HVAC PROVISIONS - AUXILLIARY HEATER PLUMBING & WIRING
EXP	EXPORT -
FE9	CERTIFICATION - EMISSION, FEDERAL
FHO	VEHICLE FUEL - GASOLINE E10
G7C	PRIMARY COLOR - EXTERIOR, PULL ME OVER RED SOLID (130X)
G7K	EQUIPMENT - ANTENNA, CABLE AND GROUNDPLATE
G80	AXLE POSITRACTION - LIMITED SLIP
GAN	PRIMARY COLOR - EXTERIOR, SWITCHBLADE SILVER MET (G) 636R
GAZ	PRIMARY COLOR - EXTERIOR, SUMMIT WHITE (G) 8624

RPO	Description
GBA	PRIMARY COLOR - EXTERIOR, BLACK (G) 8555
GT4	AXLE REAR - 3.73 RATIO
GT5	AXLE REAR - 4.10 RATIO
GU6	AXLE REAR - 3.42 RATIO
IVR	VEHICLE - VRIDE
J24	ENGINEERING YEAR - 2024
JFF	GVW RATING - 10,100 LBS
JH6	BRAKE - HYD POWER, 4 WHL DISC
JH9	BRAKE - HYD POWER, 4 WHL DISC, 14, 200 LBS
JL4	CONTROL, - ACTIVE BRAKE
K05	HEATER ENG - BLOCK
K34	CRUISE CONTROL - AUTOMATIC, ELECTRONIC
K50	FUEL - FITTING, LINE TAKE-OFF
K68	GENERATOR - 105 AMP
KC4	COOLING SYSTEM - ENG OIL
KD1	COOLING SYSTEM - TRANS, OIL
KG4	GENERATOR - 150 AMP
KI4	RECEPTACLE I/P - ELECTRICAL, 110 VOLT
KUP	THROTTLE CONTROL - ELECTRONIC
KW5	GENERATOR - 220 AMP
KYK	GOVERNOR - VEHICLE TOP SPEED LIMIT - 100 KPH
L8T	ENGINE - GAS, 8 CYL, 6.6L, SIDI, VVT, CAST IRON
LV1	ENGINE - GAS, 6 CYL, 4.3L, GEN 5, SIDI, V6, VVT, OHV, ALUM
MTF	PROVISIONS - FIRE EXTINGUISHER MOUNTING
MTH	TRANSMISSION - AUTO 8 SPD, 8L80, GEN 2
N33	STEERING COLUMN - TILT TYPE
N8X	TRANSMISSION - AUTO 8 SPD, 8L90, GEN 2
NAV	PLANT CODE - NAVISTAR, SPRINGFIELD, OH, USA
NCF	LOCK - CHILD SECURITY FEATURE - NONE
NE1	CERTIFICATION - EMISSION, GEOGRAPHICALLY RESTRICTED REGISTRATION
NE7	FUEL TANK - 216L, 57 GAL
NE8	EVAPORATIVE SYSTEM - LEVEL 3 EMISSIONS
NHT	PERFORMANCE PACKAGE - ENHANCED TOWING
NP5	STEERING WHEEL - LEATHER WRAPPED
NPL	PLATE - NAME - NONE
NRW	EMISSION SYSTEM - CALIFORNIA, SULEV170

RPO	Description
NTB	EMISSION SYSTEM - FEDERAL, TIER 3
NUM	EMISSION SYSTEM - CALIFORNIA, LEV3 MDV 10-14K GVW
P03	COVER, WHEEL - VAR 3
PNC	PANEL - TRIM, FRT DOORS & SI RR DOOR(S) & RR DOORS
PPC	PANEL - TRIM, RR DOORS
QB5	WHEEL - 16 X 6.5, J, STEEL
QT4	WHEEL - 16 X 6.5, STEEL H.D.
R04	WHEEL CONFIGURATION - RR, SINGLE
R05	WHEEL CONFIGURATION - RR, DUAL
R25	APPEARANCE PACKAGE - EXTERIOR, CHROME GRILLE & PAINTED BUMPER
R26	APPEARANCE PACKAGE - EXTERIOR, CHROME GRILLE & FRONT BUMPER
RDI	ACCESSORY - KEYLESS ENTRY
RVG	ACCESSORY - ADAPTER - TRAILER HARNESS
RYT	ACCESSORY - FIRST AID KIT
RYY	ACCESSORY - FLOOR MATS - MOLDED VINYL
RZW	ACCESSORY - HARNESS - TRAILER HITCH
S08	ACCESSORY - HIGHWAY SAFETY KIT
S52	ACCESSORY - MOLDED HOOD PROTECTOR - SMOKED
S6N	ACCESSORY - RECEIVER COVER - TRAILER HITCH
SDD	ACCESSORY - TRAILER HITCH - FIXED
SDI	ACCESSORY - TRIANGLE - REFLECTIVE
SDS	ACCESSORY - WEATHER DEFLECTORS - SIDE WINDOW - SMOKED
SFE	ACCESSORY - WHEEL LOCKS
SFV	ACCESSORY - WIRELESS NETWORK INTERFACE MODULE
T74	CONTROL, HEADLAMPS - AUTOMATIC, DELAY
TGA	LANGUAGE CONTROL - ENGLISH, FRENCH, SPANISH
TGG	LANGUAGE CONTROL - ENGLISH, ARABIC, FRENCH
TP3	BATTERY - 770 CCA & 770 CCA (DUAL)770 CCA & 770 CCA (DUAL)
TR9	LAMP GROUP -
U05	HORN - DUAL
U0F	RADIO - AM/FM STEREO, CAF, RSA, MUSIC NAVIGATOR, GRAPHICS
U0H	RADIO - AM/FM STEREO, USB, GMNA
U19	SPEEDOMETER - INST, KILO & MILES, KILO ODOMETER
U2J	DIGITAL AUDIO SYSTEM - S-BAND - NONE
U2K	DIGITAL AUDIO SYSTEM - S-BAND
U73	ANTENNA - FIXED, RADIO

RPO	Description
U80	DISPLAY - COMPASS
UA1	BATTERY - HIGH CAPACITY, WET
UA7	THEFT DETERENT SYS - EXPORT SPECIFIC, VAR #02
UC2	SPEEDOMETER - INST, KILO & MILES, KILO ODOMETER, POSITIVE BIAS
UD4	ALARM - VEHICLE SPEED, 120 K/H (DON'T USE AFTER 2010 ON NEW MAJORS - USE CTY COD &/OR VCS FAM COD INSTEAD)
UD7	PARK ASSIST - REAR
UE0	COMMUNICATION SYSTEM - VEHICLE - NONE
UE1	COMMUNICATION SYSTEM - VEHICLE, ONSTAR
UEU	SENSOR INDICATOR - FORWARD COLLISION ALERT
UF3	SWITCH - HIGH IDLE
UFA	DISPLAY - OUTSIDE TEMPERATURE
UFL	LANE ACTIVE SAFETY - DEPARTURE WARNING
UFT	SIDE ACTIVE SAFETY - OBSTACLE DETECTION
UJ1	INDICATOR - SYSTEM, BRAKE WARNING
UJM	TIRE PRESS INDICATOR - MANUAL LEARN
UL2	FREQUENCIES - EUROPEAN
UL8	FREQUENCIES - SAUDI ARABIAN
USR	RECEPTACLE - USB
UTJ	THEFT DETERENT - ELECTRICAL, UNAUTHORIZED ENTRY
UTN	PROVISIONS - UPFITTER CONTROL AND MONITORING
UVC	VISION - REAR VIEW, MONO, ANALOG
UY7	WIRING HARNESS - TRUCK TRAILER, HD
V10	PROVISION OPTIONS - COLD WEATHER
V22	GRILLE - RADIATOR, CHROME
V37	BUMPER - FRT & RR, CHROME
V46	BUMPER FRT - CHROME
V4D	CALIBRATION - SEPARATED STOP/TURN SIGNAL CIRCUITS
V78	VEHICLE STATEMENT - VEHICLE LABEL CONTENT - NO CERT STATEMENT (ENGLISH TEXT)
V87	VEHICLE STATEMENT - VEHICLE LABEL CONTENT - GULF STATES ORGANIZATION
V8C	VEHICLE STATEMENT - VEHICLE LABEL CONTENT - NO CERT STATEMENT (SPANISH TEXT)
V8D	VEHICLE STATEMENT - VEHICLE LABEL CONTENT - U.S. FMVSS
V8E	VEHICLE STATEMENT - VEHICLE LABEL CONTENT - CANADA CMVSS
V8I	VEHICLE STATEMENT - VEHICLE LABEL CONTENT - ISRAEL FMVSS

RPO	Description
VBX	LANGUAGE LABEL - ARABIC
VC5	LABEL - SHIPPING, EXCEPT US, US POSSESSIONS, OR JAPAN
VG8	VEHICLE - LABEL, NOTICE TO BUYER
VH6	BUMPER FRT - BLACK
VJG	BUMPER RR - BLACK
VK3	LICENSE PLATE FRONT - FRT MOUNTING PKG
VK5	SEAT - TEMPORARY, FOR SHIPPING
VLU	ACCESSORY - SECURITY SCREEN PACKAGE - REAR WINDOW W/O POP - OUT
VP6	NOISE CONTROL -
VPH	VEHICLE PREPARATION - OVERSEAS DELIVERY
VQK	ACCESSORY - SPLASH GUARDS - CUSTOM MOLDED
VR4	TRAILER HITCH - WEIGHT DISTRIBUTING PLATFORM
VR6	HOOK - TIE-DN SHPG
VT7	OWNERS MANUAL - ENGLISH LANGUAGE
VXT	VEHICLE TYPE - INCOMPLETE
VXW	ACCESSORY - ASSIST STEPS - MOLDED
W1Y	CONTROL - STEERING WHEEL, RADIO, REDUNDANT CONTROLS
WEN	PLANT CODE - WENTZVILLE, MO, USA
WMY	VIN MODEL YEAR - 2024
X88	MARKET BRAND - CHEVROLET
XHF	TIRE FRONT - LT225/75R16 E 115/112 S BL ALS
XL7	FREQUENCIES RATING - 315 MHZ, LONG DISTANCE
XL8	FREQUENCIES RATING - 433 MHZ
XLP	TIRE FRONT - LT245/75R16 E 120/116 S BW ALS
Y3H	SALES PACKAGE - HANDICAPPED, MOBILITY, PARATRANSIT
YA2	DOOR SIDE - REAR, SLIDING DOOR, MANUAL
YB9	PAINT PROCESS - INTERIOR - NONE
YC6	PACKAGE, CONVENIENCE - DECOR LEVEL #6
YF1	SALES PACKAGE - CUTAWAY UPFITTER
YF2	SALES PACKAGE - AMBULANCE UPFITTER
YF5	CERTIFICATION - EMISSION, CALIFORNIA
YHF	TIRE REAR - LT225/75R16 E 115/112 S BL ALS
YLP	TIRE REAR - LT245/75R16 E 120/116 S BW ALS
YM8	IDENTIFICATION - LIMITED PERSONALIZATION OPTION (LPO)
Z49	COUNTRY - CANADA

RPO	Description
Z82	TRAILER PROVISIONS - SPECIAL EQUIPMENT, H.D.
Z88	MARKET BRAND - GMC
ZHF	TIRE SPARE - LT225/75R16 E 115/112 S BL ALS
ZLP	TIRE SPARE - LT245/75R16 E 120/116 S BW ALS
ZP0	SEATING ARRANGEMENT - TEMPORARY DRIVER
ZP3	SEATING ARRANGEMENT - 15 PASS
ZP6	SEATING ARRANGEMENT - 5 PASS CARGO
ZQ2	SALES PACKAGE - DRIVER CONVENIENCE
ZQ3	SALES PACKAGE - DRIVER CONVENIENCE II
ZR7	APPEARANCE PACKAGE - GRILLE & BUMPER CHROME
ZW2	WINDOW PKG - RR DRS
ZW3	WINDOW PKG - RR DRS, SIDE RR DR
ZW4	WINDOW PKG - RH SIDE, RR DRS
ZW6	WINDOW PKG - COMPLETE BODY
ZW9	BODY EQUIPMENT - BASE BODY OR CHASSIS
ZX1	SEATING ARRANGEMENT - DRIVER ONLY, HIGH BACK
ZX2	SEATING ARRANGEMENT - DRIVER & PASS, HIGH BACK
ZX5	SEATING ARRANGEMENT - 12 PASS
ZX9	TIRE SPARE - W/WHEEL - NONE
ZY1	COLOR COMBINATION - SOLID (MEDIUM DUTY ONLY)

Section 2

Body Systems

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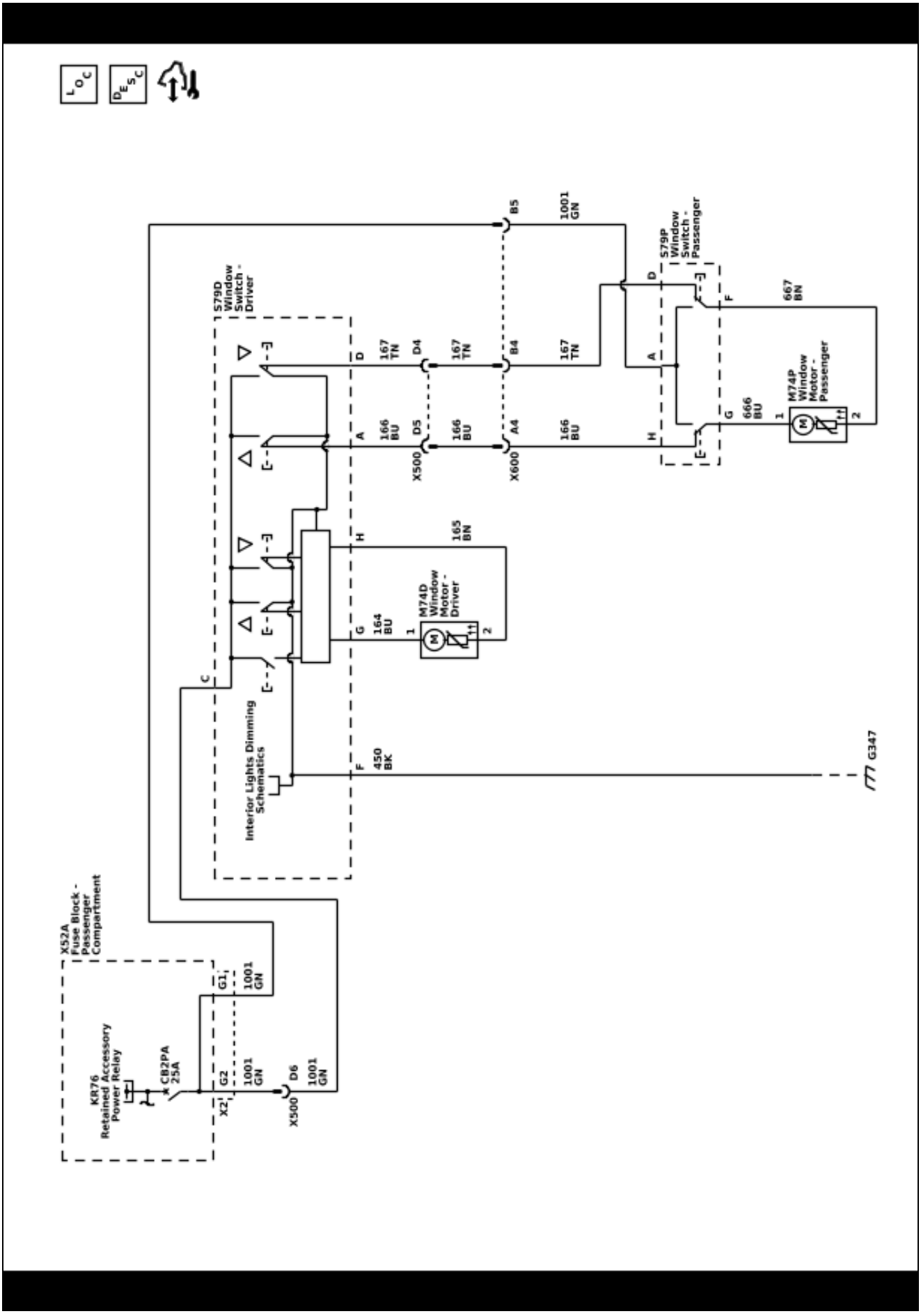
BLANK

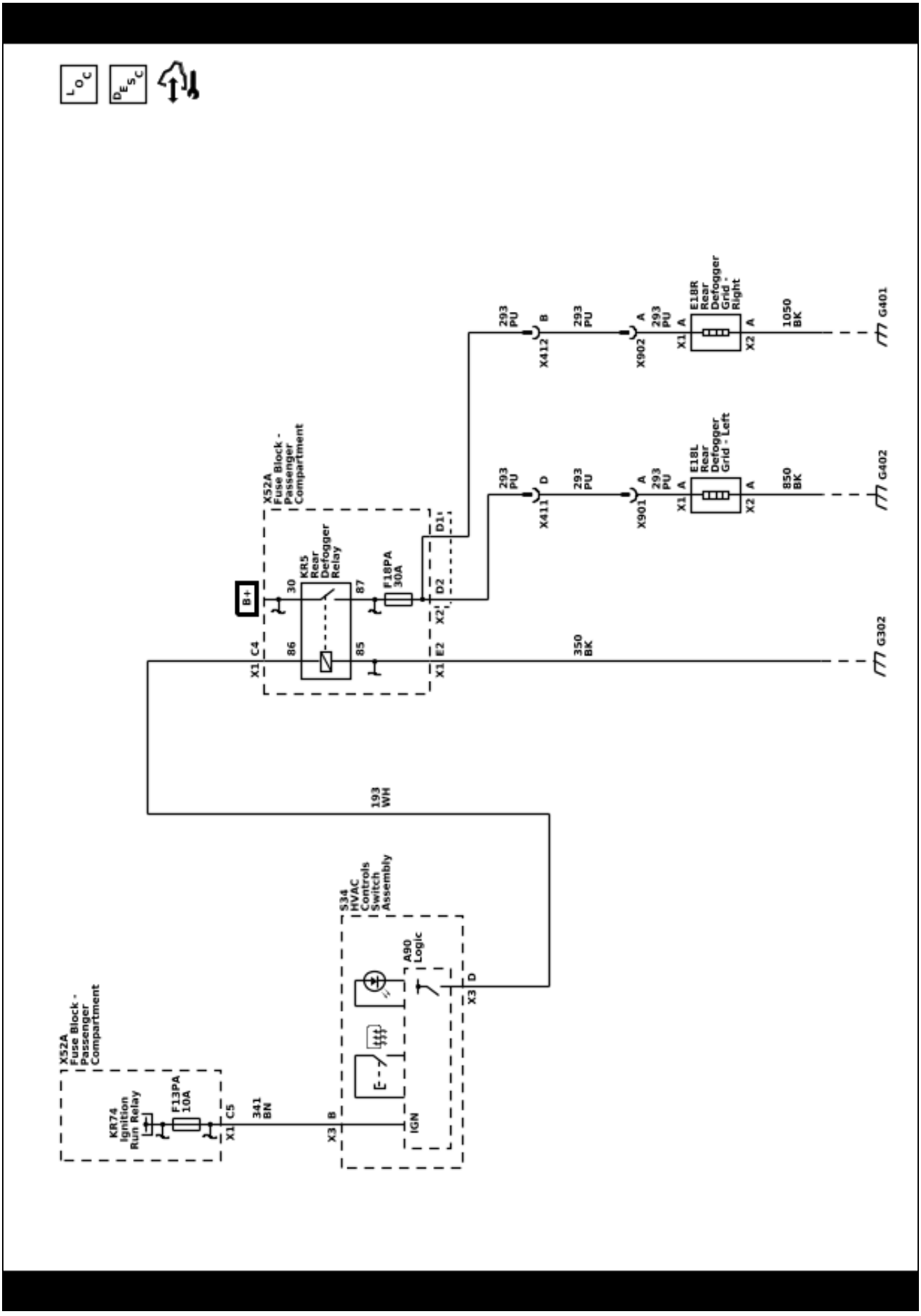
Fixed and Moveable Windows

Schematic and Routing Diagrams

Moveable Window Schematics (Moveable Windows (A31))



Defogger Schematics (Defogger (C49))



Description and Operation

Power Windows Description and Operation

Power Window System Components

The power window system consists of the following components:

- LF power window master switch
- RF power window switch
- Reversible power window motors in each of the doors (circuit breaker protected)
- PWR WNDW 25A circuit breaker

Power Window System Controls

The power window system will operate anytime the ignition switch is in the ACCY or ON position or when RAP is activated.

The LF power window master switch can control the up and down functions of both the windows in the vehicle. The passenger door power window switch can only control the up and down functions of the passenger window.

Power Window Motor Operation

A permanent magnet motor operates each of the power side windows. Each motor raises or lowers the glass when the motor receives voltage. The direction the motor turns depends on the polarity of the supply voltage. The power window switches control the polarity of the supply voltage. A built-in circuit breaker protects each motor. The circuit breaker opens when the switch is depressed for a extended period of time under the following conditions:

- The window has an obstruction.
- The window is fully open or fully closed.

The circuit breaker will reset automatically as the circuit breaker cools.

Power Window Operation

The normally closed contacts of the switch are connected to ground and the center pole is connected to the accessory voltage circuit. By placing the left power window switch in the down position, voltage is applied to the power window motor left front down circuit and to the power window motor. The other side of the power window motor is connected to ground through the normally closed contacts of the left power window switch through the power window motor left front up circuit and drives the window down.

By placing the power window switch in the up position the polarity of the motor is reversed and the motor drives the window up.

Rear Window Defogger Description and Operation

Rear Window Defogger System Components

The rear window defogger system consists of the following components:

- HVAC control assembly
- Rear window defogger relay
- Rear window defogger grid

Rear Window Defogger Operation

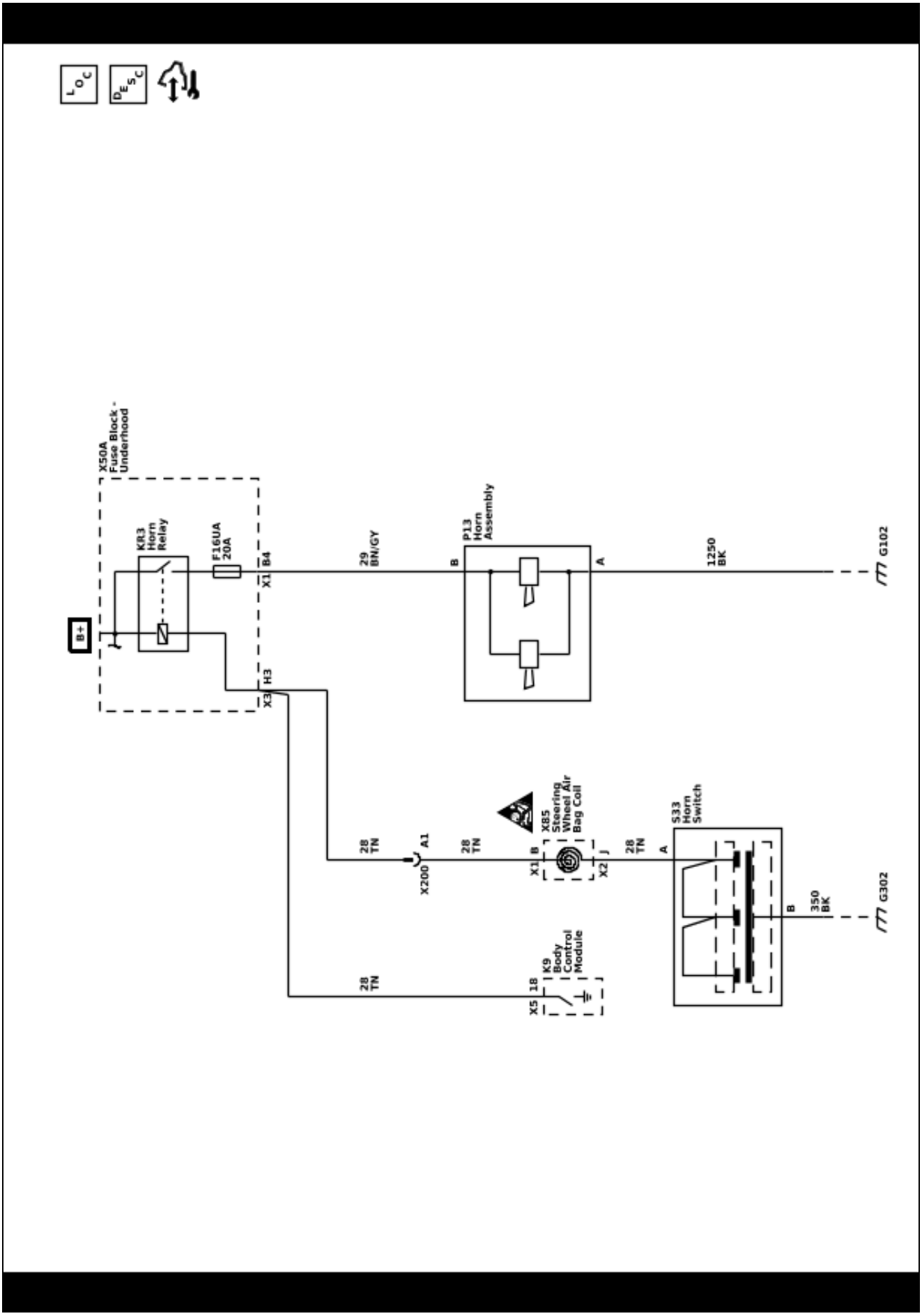
When you turn the ignition to the ON position, battery positive voltage is supplied through the HTD MIR DEFOG fuse to the rear window defogger relay switched input. Ground is for the rear window defogger relay coil is provided by G302. Battery positive voltage and ignition voltage is supplied to the HVAC control assembly for rear window defogger operation. When the rear window defogger switch is depressed, the HVAC control assembly energizes the rear window defogger relay by supplying battery positive voltage to the rear window defogger relay coil. This allows battery positive voltage from the relay switched input through the switch contacts and out the relay switched output to the rear window defogger grids. The HVAC control assembly also illuminates the rear window defogger indicator upon this request. Ground for the left rear window defogger grid is provided by G401. Ground for the right rear window defogger grid is provided by G402.

When you turn ON the ignition and press the rear window defogger switch for the first time, the defogger cycle lasts 10 minutes. Further operation results in 5 minute defogger cycles. The defogger cycle resets to 10 minutes when you cycle the ignition to the OFF position and then back to the ON position.

Horns and Pedestrian Alerts

Schematic and Routing Diagrams

Horn Schematics (Horn Schematics)



Description and Operation

Horns System Description and Operation

System Description

The horn system consists of the following components:

- The HORN fuse
- The Horn relay
- The Horn Contact
- The Horn Assembly
- Body Control Module (BCM)

System Operation

- The vehicle horns are activated whenever the horn switch is depressed.
- The BCM commands the horns ON under any of the following conditions:
  - When the panic button is depressed on the remote control door lock transmitter.
  - When the keyless entry system is used to lock the vehicle, a horn chirp may sound to notify the driver that the vehicle has been locked. The notification feature may be enabled or disabled through personalization.

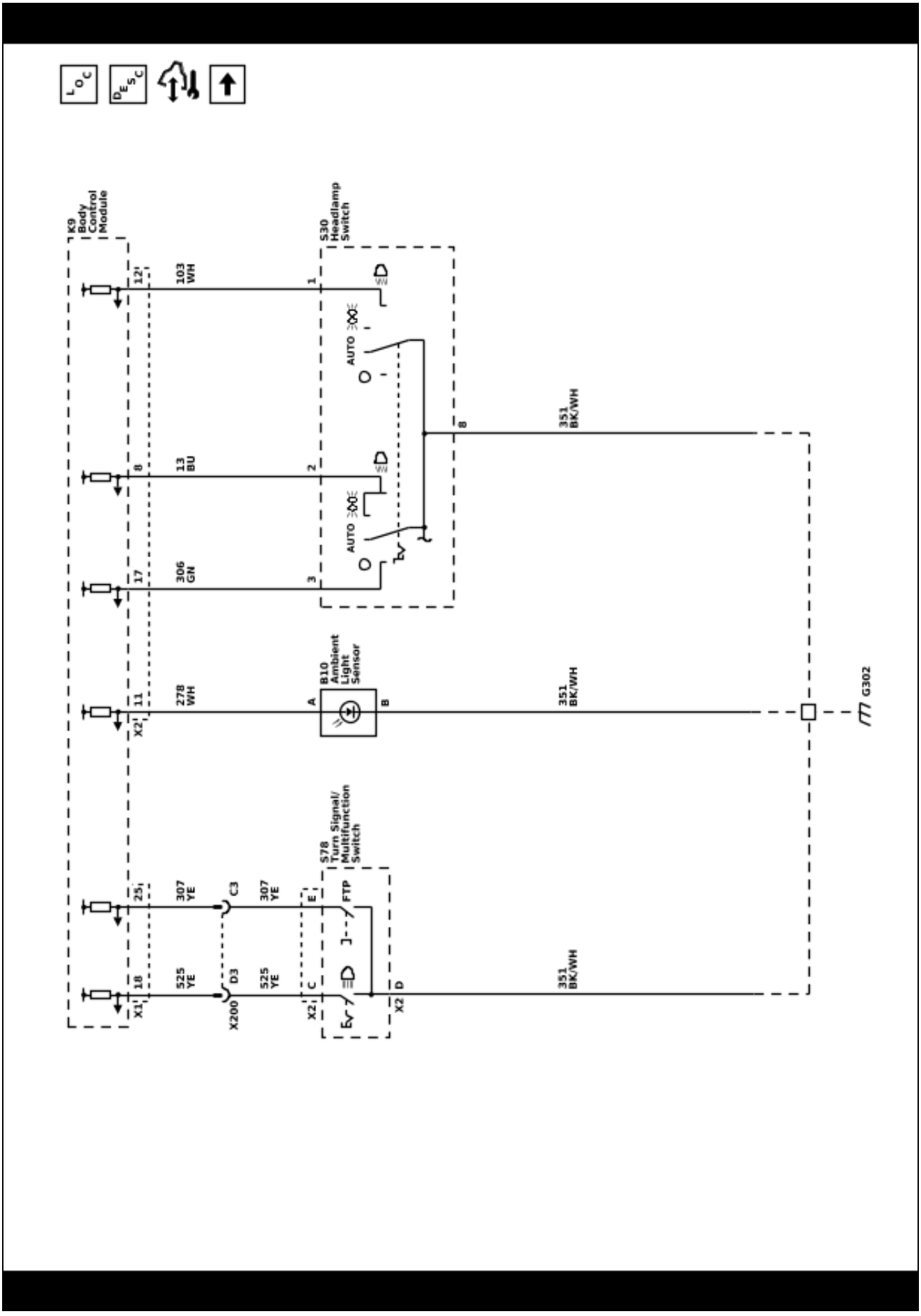
Circuit Operation

Battery positive voltage is applied at all times to the horn relay coil and the horn relay switch. Pressing the horn switch applies ground to the horn relay control circuit. When the horn relay control circuit is grounded, the horn relay is energized and battery positive voltage is applied to the horns through the horn control circuit. The horns sound as long as ground is applied to the horn relay control circuit.

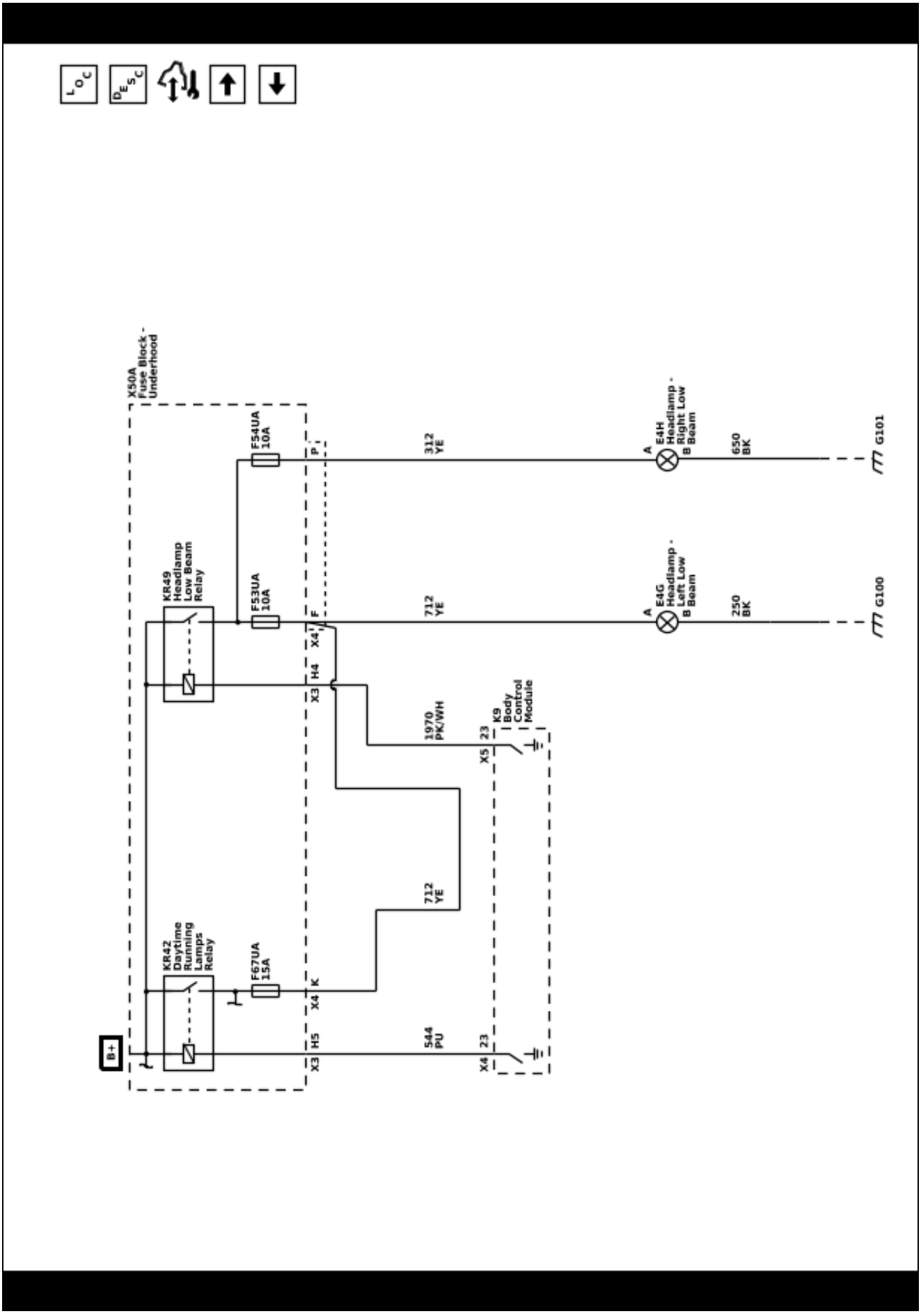
Lighting

Schematic and Routing Diagrams

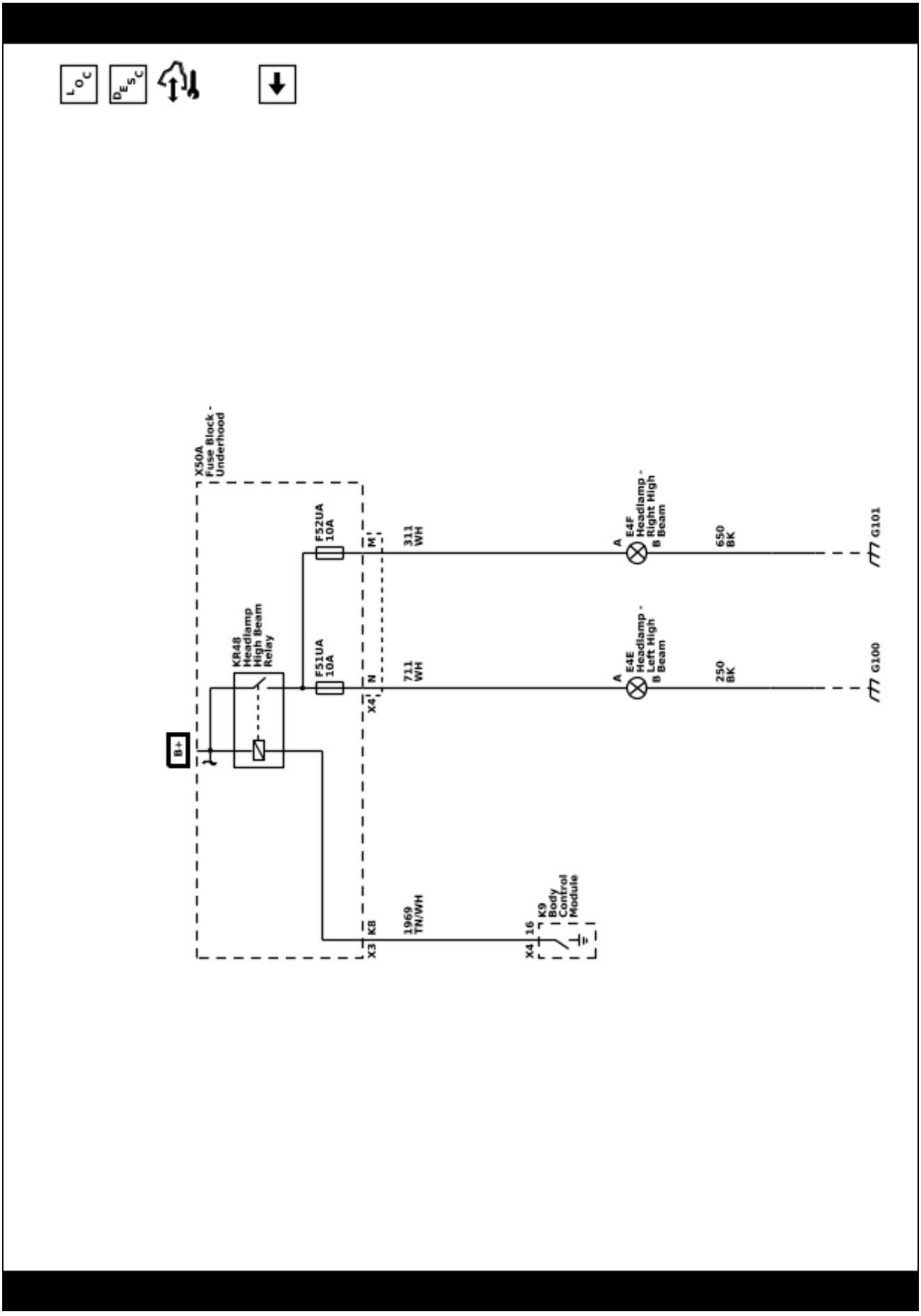
Headlights/Daytime Running Lights (DRL) Schematics (Headlamp and Daytime Running Lamp Controls)



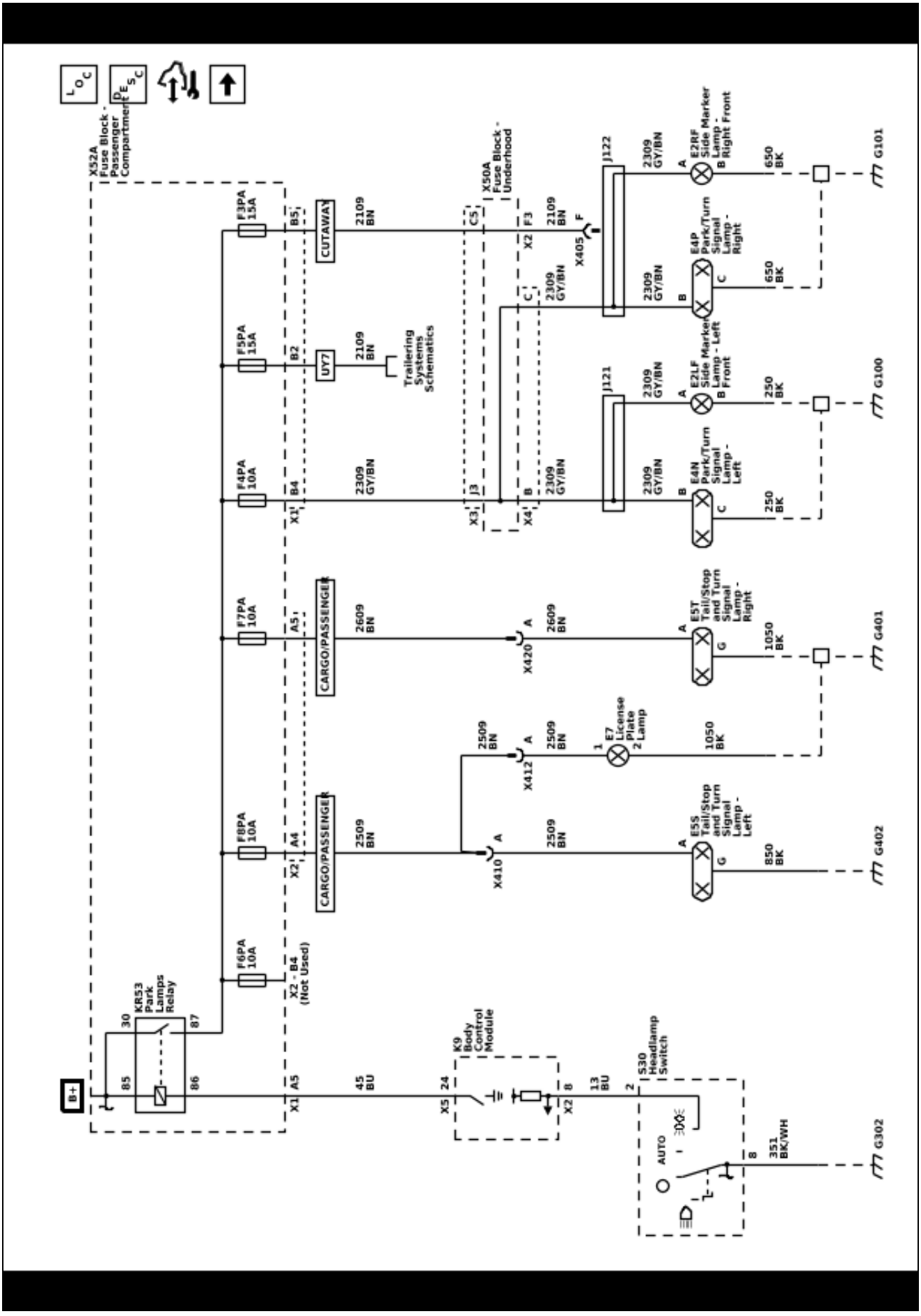
Headlights/Daytime Running Lights (DRL) Schematics (Low Beam and Daytime Running Lights)



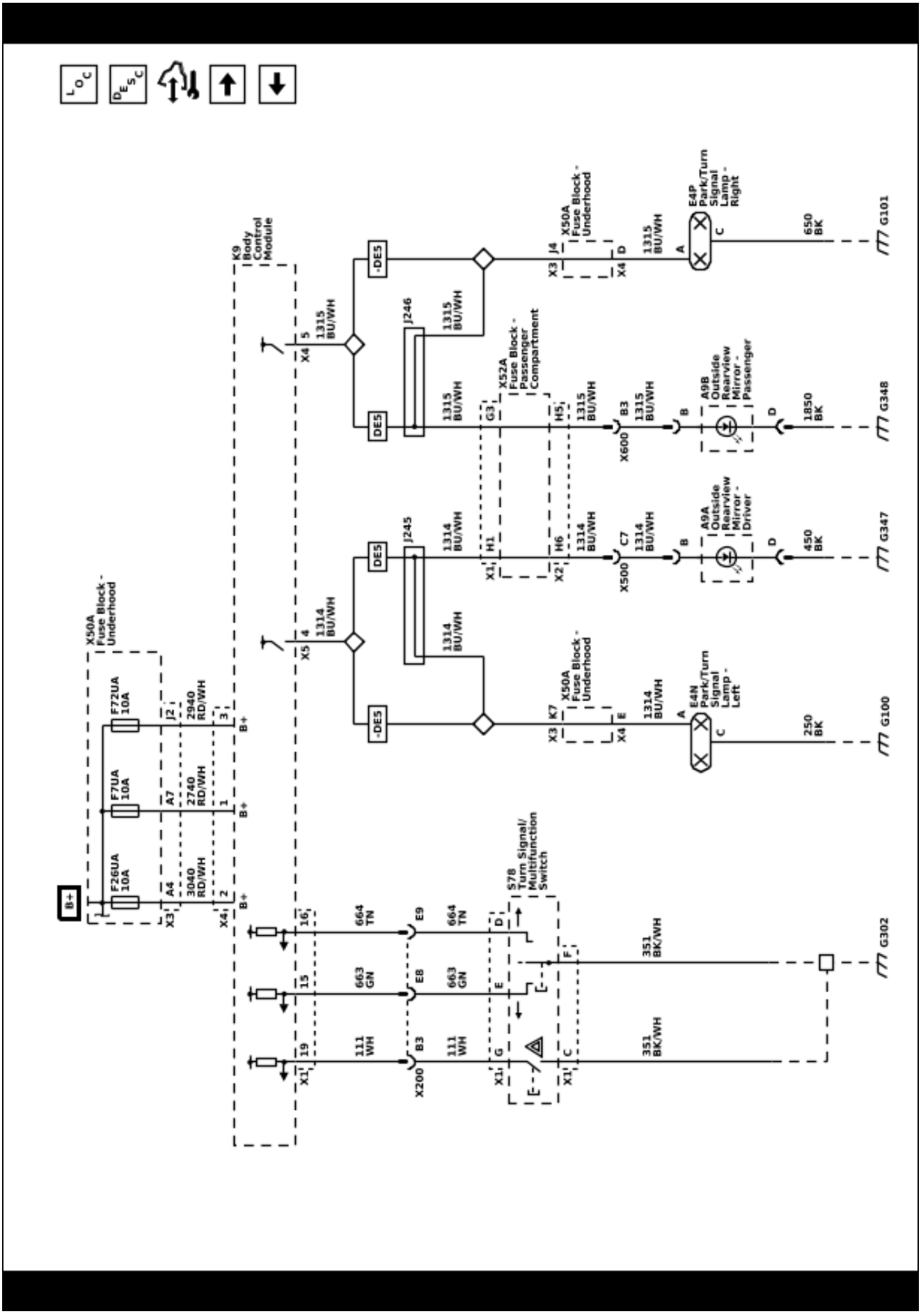
Headlights/Daytime Running Lights (DRL) Schematics (High Beams)



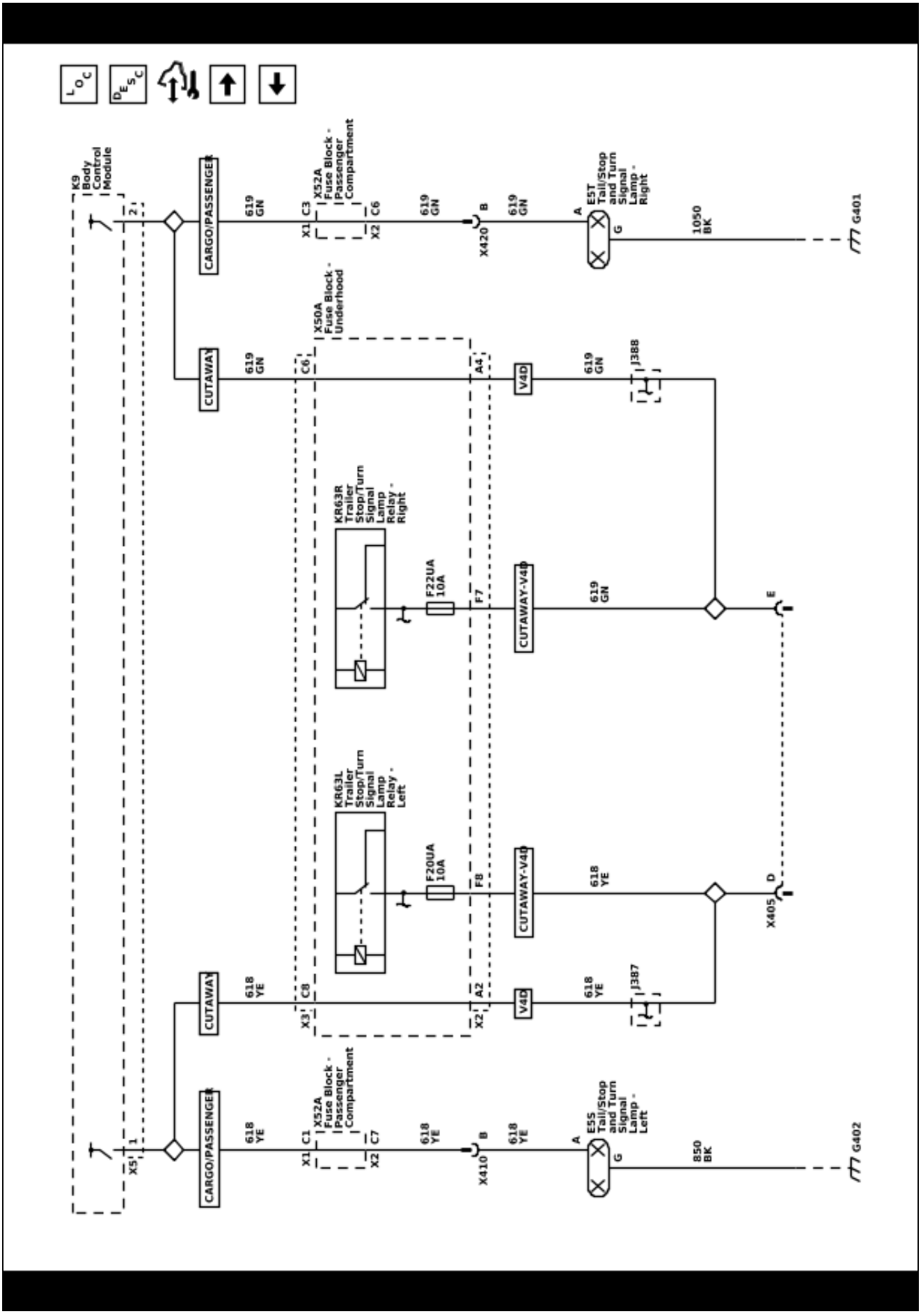
Exterior Lights Schematics (Park Lamp Controls and Park Lamps)



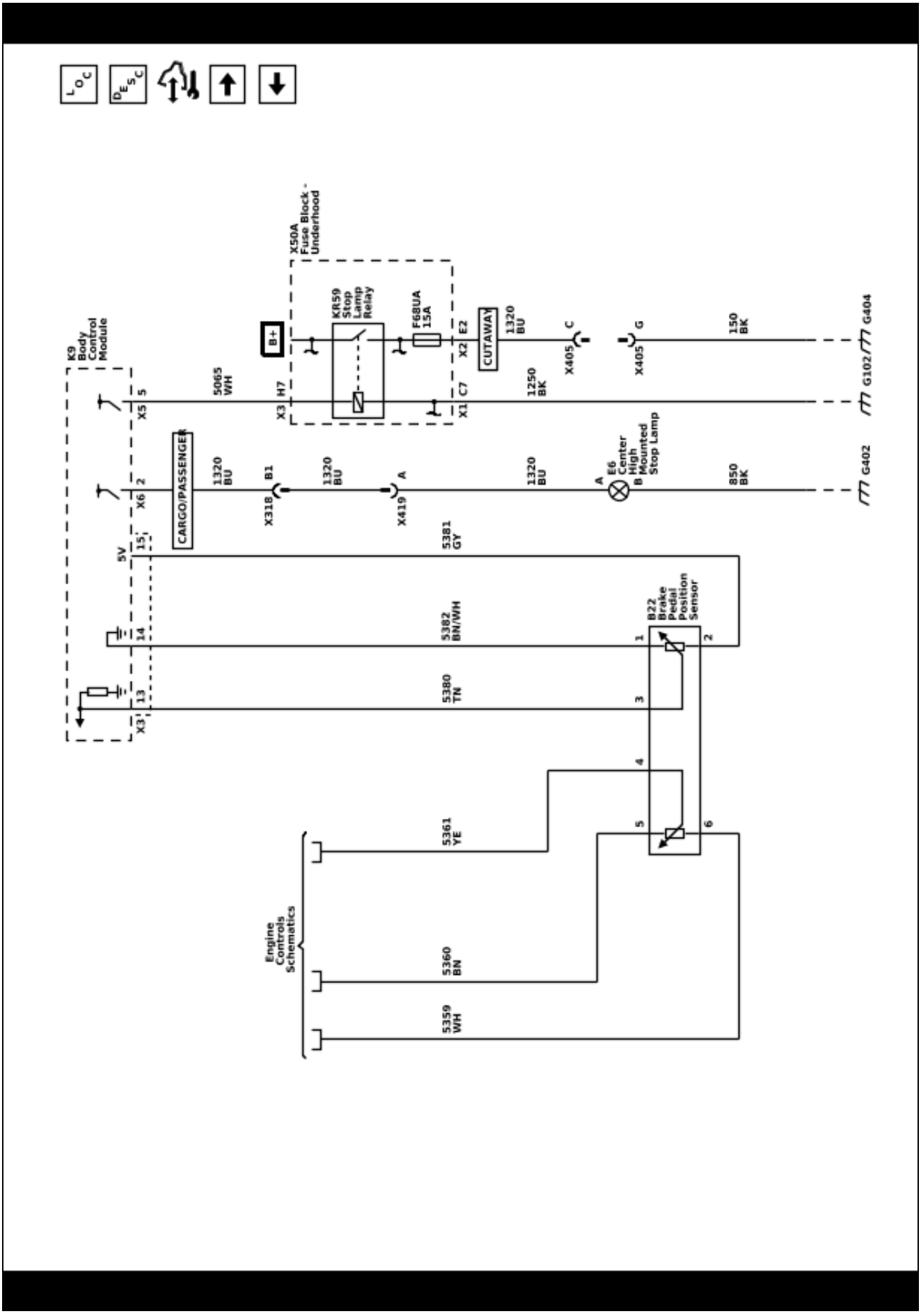
Exterior Lights Schematics (Turn Signal Controls and Front Turn Signal Lamps)



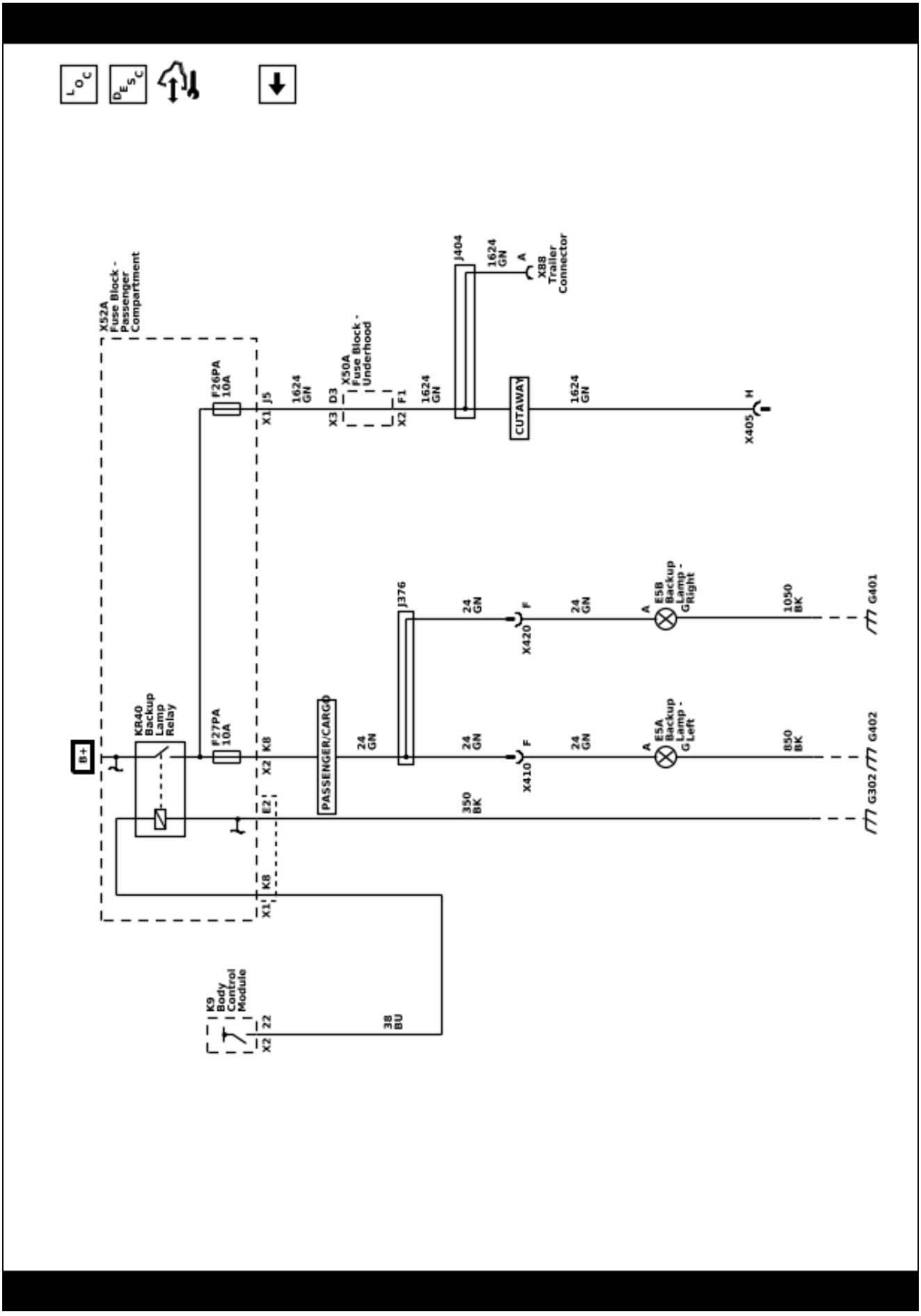
Exterior Lights Schematics (Rear Turn Signal Lamps)



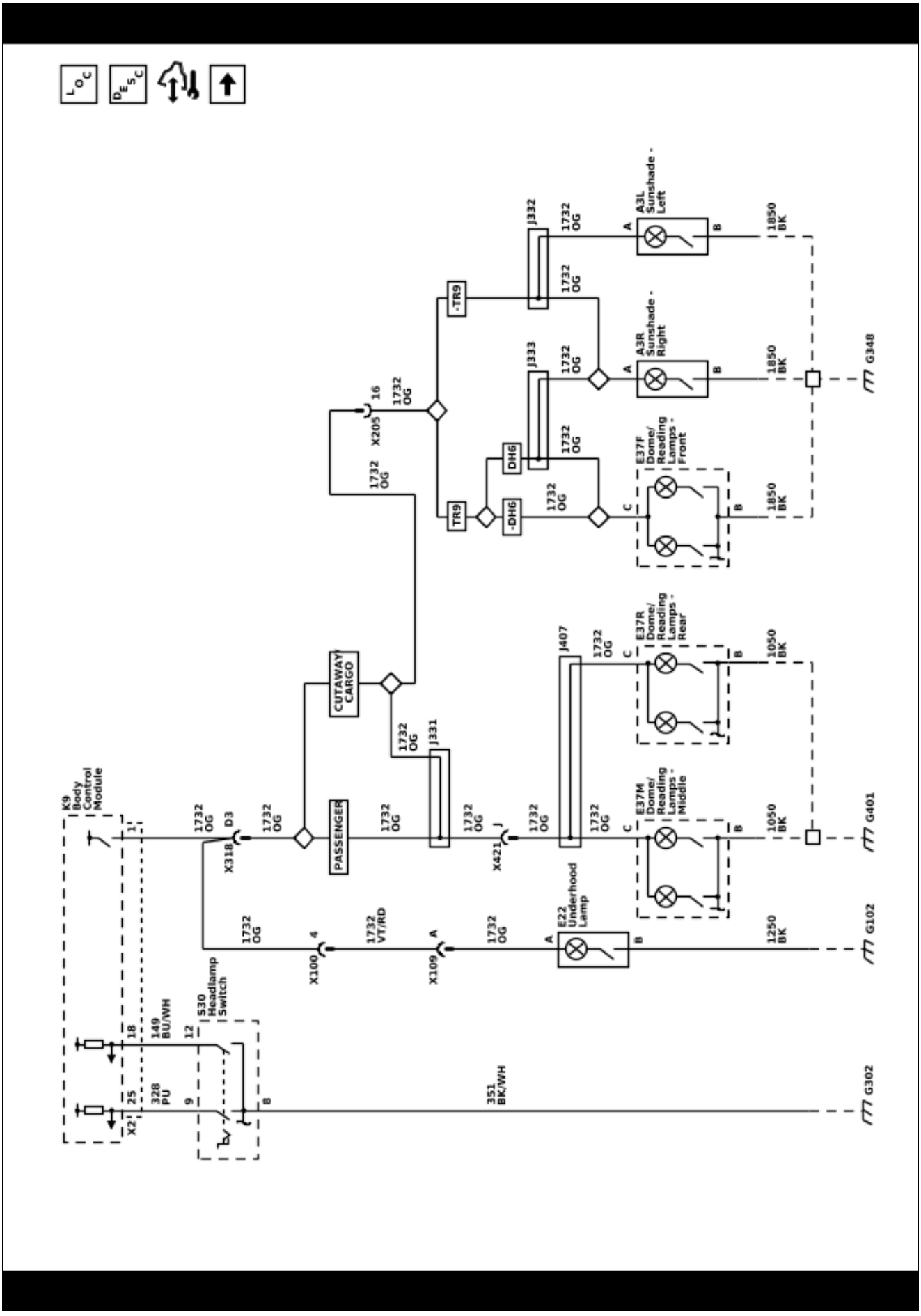
Exterior Lights Schematics (Stop Lamp Controls and CHMSL)



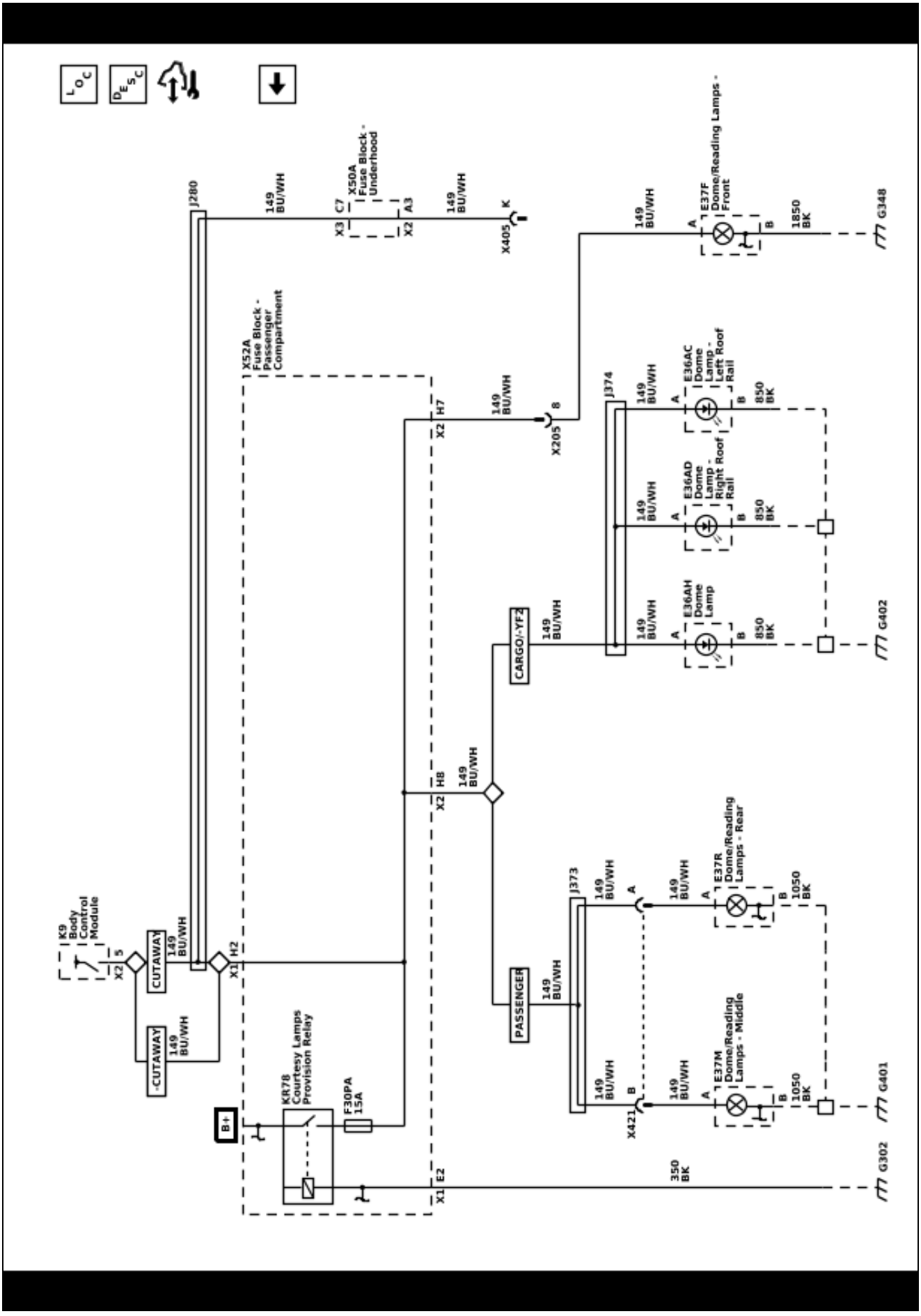
Exterior Lights Schematics (Backup Lamps)



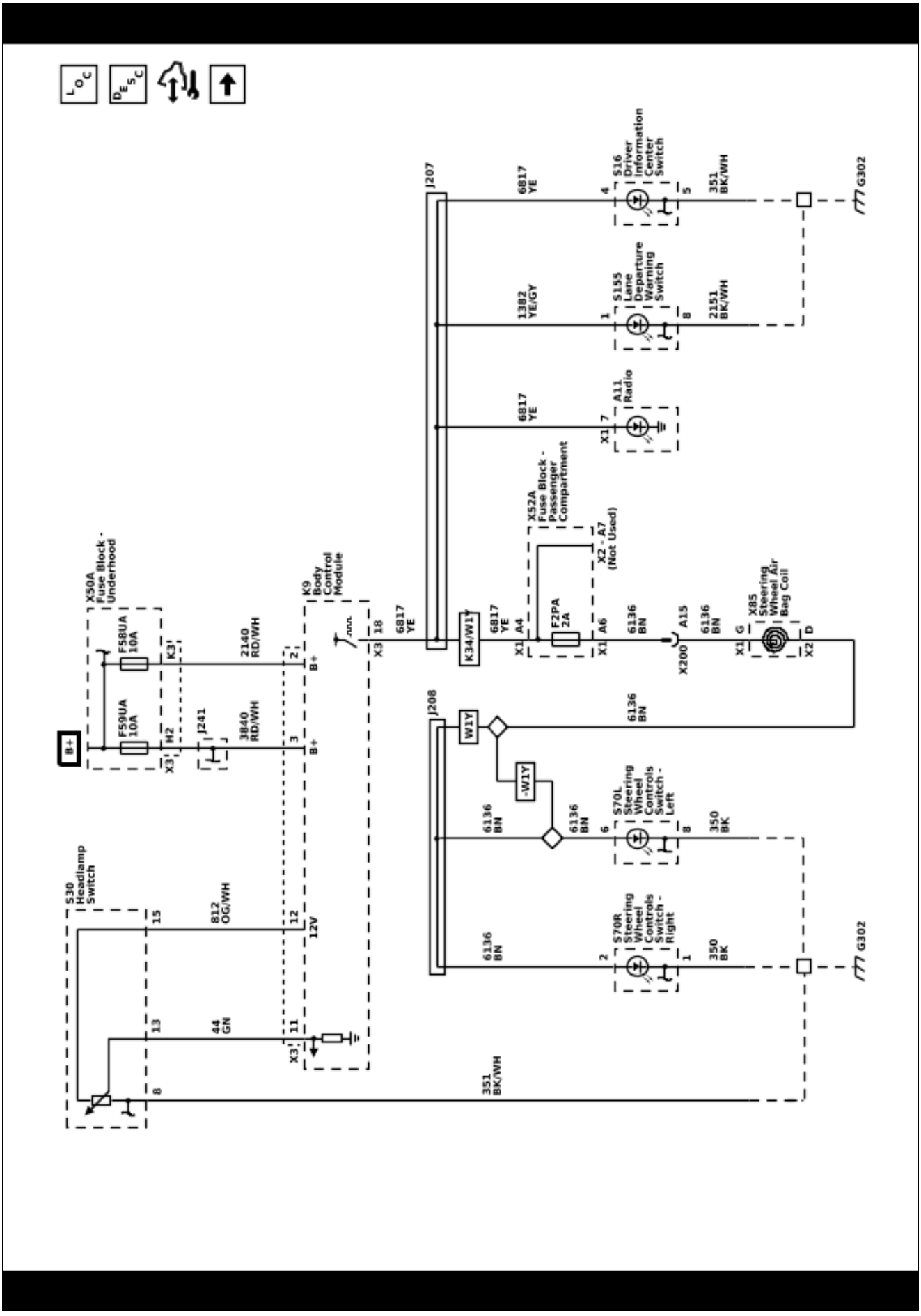
Interior Lights Schematics (Inadvertent Lamp Control)



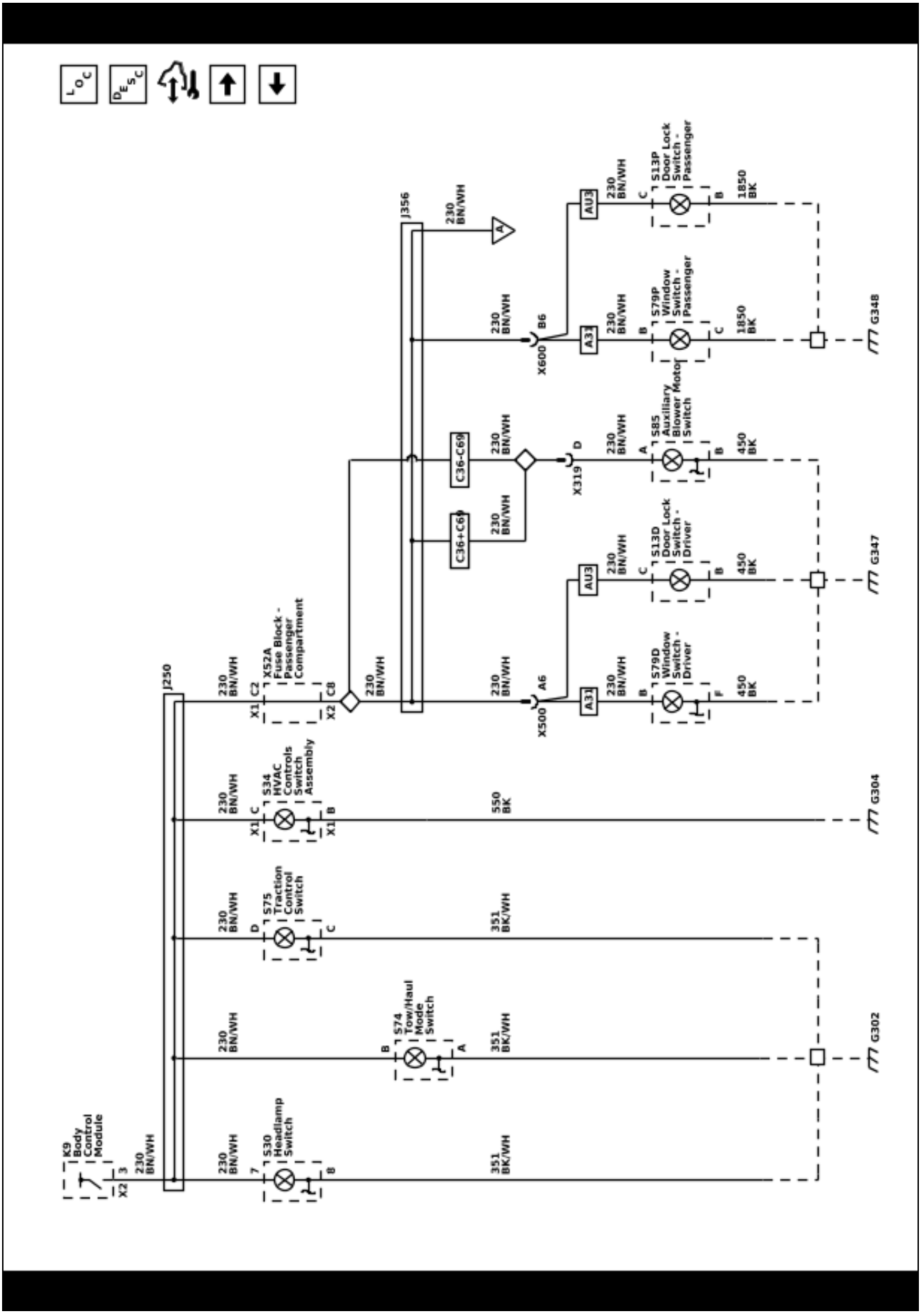
Interior Lights Schematics (Courtesy Lamp Control)



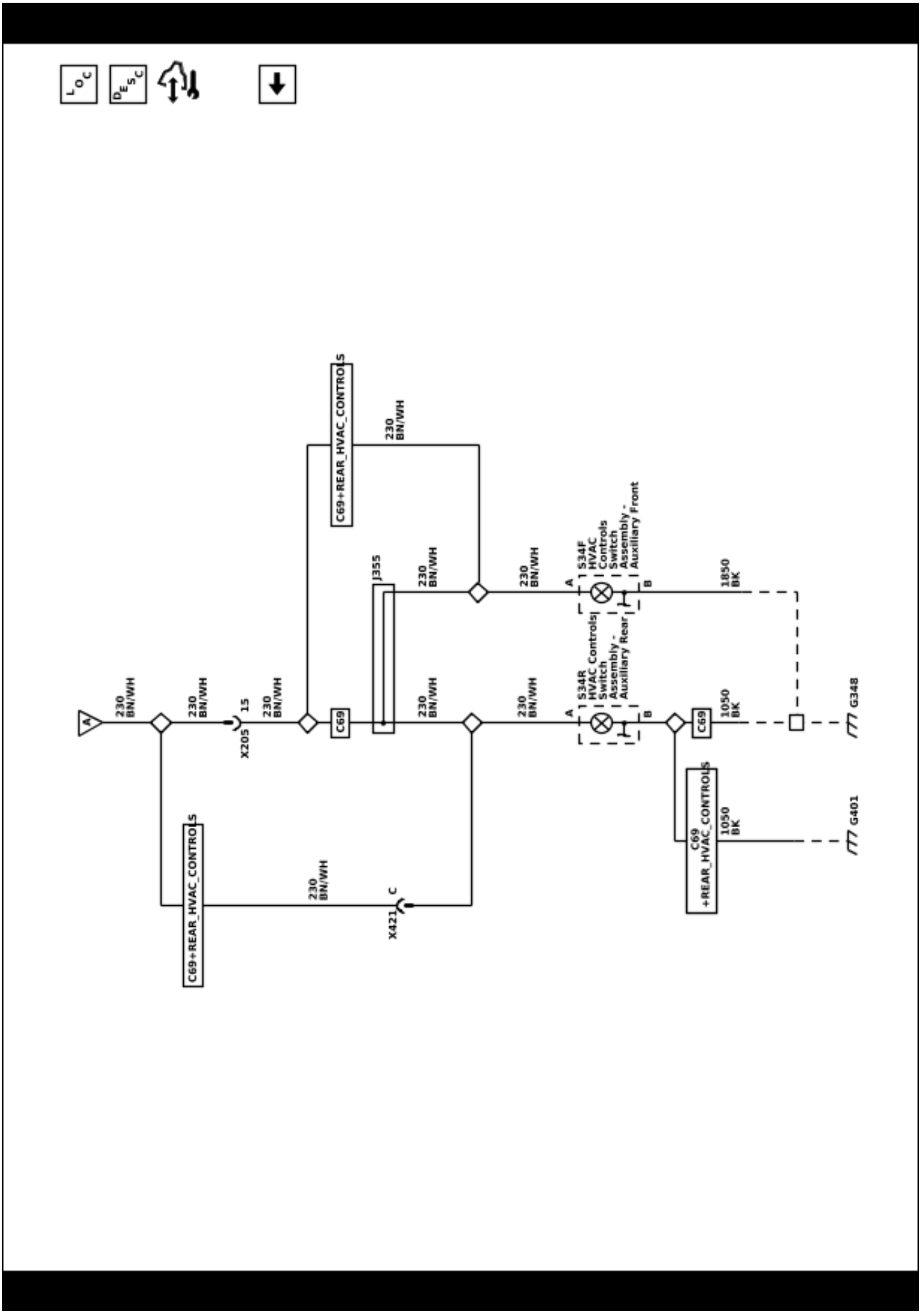
Interior Lights Dimming Schematics (Dimming Controls and LED Dimming)



Interior Lights Dimming Schematics (I/P Bulb Dimming - 1 of 2)



Interior Lights Dimming Schematics (I/P Bulb Dimming - 2 of 2)



Description and Operation
Exterior Lighting Systems Description and Operation

Exterior Lamps

The exterior lighting consist of the following lamps:

- Headlamps
- Daytime running lamps (DRL)
- Park lamps
- Tail lamps
- License lamps
- Marker lamps
- Turn signal lamps
- Stop lamps
- Center high mounted stop lamp (CHMSL)
- Backup lamps
- Trailer Lamps

Low Beam Headlamp Operation

The headlamps may be turned ON in 3 different ways:

- When the headlamp switch in the HEAD position for normal operations
- When the headlamp switch is in the AUTO position, for automatic lamp control (ALC)
- When the headlamp switch is placed in the AUTO position, with the windshield wipers ON in daylight conditions, after a 6 second delay

Battery voltage is applied at all times to the coil and switch sides of the LOW BEAM PCB Relay located in the underhood fuse block. With the headlamp switch in the headlamps ON position, ground is applied through the headlamps ON switch signal circuit to the body control module (BCM) signaling the headlamps ON request. In response to this signal, the BCM applies ground through the low beam relay control circuit energizing the LOW BEAM PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the LT and RT LOW BEAM fuses, and the low beam supply voltage circuits illuminating the low beam headlamps.

High Beam Headlamp Operation

Battery voltage is applied at all times to the coil and switch sides of the HIGH BEAM PCB Relay located in the underhood fuse block. When the headlamp dimmer switch is placed in the high beam position, the headlamp dimmer switch signal circuit to the BCM is pulled low signaling the headlamp high beam request. In response to this signal, the BCM applies ground through the high beam relay control circuit energizing the high beam relay. With the relay energized, battery voltage is applied through the switch side of the relay, the LT and RT HIGH BEAM fuses, and the high beam supply voltage circuits illuminating the high beam headlamps. At the same time the BCM sends a serial data message to the instrument panel cluster (IPC) requesting the IPC to illuminate the high beam indicator.

Flash to Pass (FTP)

When the headlamp dimmer switch is pulled toward the driver, the flash to pass signal circuit to the BCM is pulled low signaling the flash to pass request. The BCM then turns ON the high beam headlamps as described above until the headlamp dimmer switch is released. If the low beam headlamps were ON during FTP operation they will remain ON.

Daytime Running Lamps (DRL) and Automatic Lamp Control (ALC)

The low beam headlamps are used for DRL operation at a reduced intensity. The DRLs will operate only with the ignition ON, the headlamp switch in the AUTO position, and the gear selector out of the park position. No other exterior lamps such as the parking lamps, tail lamps, etc. will be on when the DRL are being used. The instrument panel will not be illuminated either.

DRL operation is determined by the ambient light sensor and controlled by the body control module (BCM). The ambient light sensor is a light-sensitive transistor used to monitor outside lighting conditions. The BCM provides a 5-volt reference signal to the sensor. The sensor will vary this voltage signal between 0.2 and 4.9 volts depending on outside lighting conditions. The BCM monitors the ambient light sensor signal circuit to determine if outside lighting conditions are correct for either DRL or ALC operation. When the BCM determines the conditions are met for DRL operation, it applies ground to the DRL relay control circuit energizing the DRL PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the DRL 1 fuse, the DRL 2 fuse, both low beam headlamp fuses, and the low beam supply voltage circuits illuminating the headlamps at a reduced intensity. Any function or condition that turns on the headlamps will cancel DRL operation.

When the BCM detects low light conditions, it will turn OFF the daytime running lamps and turn ON the low beam headlamps as described above in Low Beam Headlamp Operation. The BCM will also turn ON the low beam headlamps in daylight conditions when the windshield wipers are turned ON.

HDLPS Suggested Indicator

If the park lamps are turned ON manually and the ambient light sensor detects a low light condition then the body control module (BCM) will send a message to the instrument panel cluster (IPC) to display the HEADLAMPS SUGGESTED message.

Lights ON Warning

The body control module (BCM) activates the lights ON warning as requested by the headlamp dimmer switch. The lights ON warning sounds when the following occurs:

- The key is out of the ignition.
- The BCM determines that the drivers door is open, signal is low.
- The BCM determines that the headlamp switch is in the PARK or HEAD position.

Park, Tail, Marker and License Lamps

The park, tail, and marker lamps are turned ON when the headlamp switch is placed in either the HEAD or PARK lamp positions, or anytime the automatic light control (ALC) turns the headlamps ON. When the headlamp switch is placed in the park lamp or headlamp positions, ground is applied through the switch signal circuit to the BCM indicating the park lamp ON request. In response to this signal, the BCM applies ground through the park lamp relay control circuit energizing the PRK LAMP Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the park lamp fuses, and the supply voltage circuits illuminating the park, license, side marker, and tail lamps.

Turn Signal Lamps

The BCM 3, BCM 5, and BCM 6 fuses located in the underhood fuse block supply battery voltage to the body control module (BCM) for turn signal, hazard lamp, and stop lamp operation. Voltage from the BCM 5 fuse used for the front and rear left turn signals, voltage from the BCM 3 for the right front turn signal, while voltage from the BCM 6 fuse is used for the right rear turn signal. When the turn signal switch is place in either the LEFT or RIGHT position, ground is applied through the turn signal switch signal circuit to the BCM indicating the turn signal request. In response to this signal, the BCM applies a pulsating voltage to the front and rear turn signal lamps supply voltage circuits cycling the lamps ON and OFF. The BCM also sends a message via to the instrument panel cluster (IPC) to cycle the turn signal indicator ON and OFF depending on the position of the turn signal switch.

Hazard Lamps

The hazard flashers may be activated in any power mode. When the hazard lamp switch is placed in the ON position, ground is applied through the hazard switch signal circuit to the body control module (BCM) indicating the hazard lamps ON request. In response to this signal, the BCM applies a pulsating voltage though all front and rear turn signal supply voltage circuits cycling the lamps ON and OFF. The BCM also sends a serial data message to the instrument panel cluster (IPC) to cycle both turn signal indicators ON and OFF.

Stop Lamps (cargo/passenger)

The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5-volt reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM will apply battery voltage to the right and left stop lamp control circuits, transmission control module (TCM), engine control module (ECM), center high mounted stop lamp (CHMSL) control circuit, and trailer brake control module if equipped.

Stop Lamps (cutaway)

The BCM controls the stop lamps based on the input from the stop lamp switch. When the BCM detects the brake pedal is depressed, B+ is applied to the stop lamp relay control circuit energizing the Stop Lamp PCB Relay. With the relay energized, B+ is applied to the stop/turn lamp supply voltage circuits illuminating both stop lamps.

Backup Lamps

When the gear selector is placed in the REVERSE position, the powertrain control module (PCM) sends a serial data message to the BCM indicating the backup lamps ON request. The BCM then applies battery voltage through the backup relay control circuit energizing the BCK/UP LAMP PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the T/LAMP BCK/UP fuse, the AUX/TRLR BCK/UP fuse and the supply voltage circuits illuminating the left and right backup lamps and the backup alarm. The engine may need to be running for the backup lamps to function.

Trailer Lamps

Backup Lamps

With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message to the K9 Body Control Module (BCM). The message indicates that the gear selector is in the reverse position. The BCM responds by applying voltage to the KR40 Backup Lamp Relay control circuit. With the backup lamp relay energized, the relay switch contacts close and battery voltage is applied through the backup lamp fuse to the trailer backup lamp control circuit which illuminates the trailer backup lamp(s). Once the driver moves the gear selector out of the reverse position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamp relay control circuit. The engine must be running for the backup lamps to operate.

Park Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the K9 Body Control Module (BCM). The BCM responds by applying ground to the KR53 Park Lamps Relay control circuit. With the park lamp relay energized, the relay switch contacts close and battery voltage is applied through the park lamp fuse to the trailer park lamp control circuit which illuminates the trailer park lamps.

Stop Lamps

For stop lamp operation, the left and right trailer stop/turn signal lamp relay's are supplied with battery voltage at all times. The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The K9 Body Control Module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM responds by applying ground to the left and right stop lamp relay control circuits. With the left and right trailer stop/turn signal lamp relay's energized, the relay switch contacts close and battery voltage is applied through the left and

right trailer stop/turn signal fuse's to the trailer stop lamp control circuits which illuminates the trailer stop lamps.

Turn Signal Lamps

For turn signal lamp operation, the left and right trailer stop/turn signal lamp relay's are supplied with battery voltage at all times. Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the K9 Body Control Module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating ground to the appropriate left or right trailer stop/turn signal lamp relay control circuits energizing the relay's in an ON and OFF cycle. With the left or right trailer stop/turn signal lamp relay's energized, the relay switch contacts cycle ON and OFF applying battery voltage through the left or right trailer stop/turn signal fuse to the trailer turn signal lamp control circuits which illuminates the trailer turn signal lamps in an ON and OFF cycle.

Interior Lighting Systems Description and Operation

The interior lighting consist of two groups; lamps that may not be manually dimmed (Interior Lamps) and lamps that may be dimmed (Interior Lamps Dimming).

The first group listed below includes lamps that may not be dimmed:

- Front dome/reading lamps
- Middle dome/reading lamps
- Rear dome/reading lamps
- Sunshade Mirror Lamps
- Underhood Lamp

Interior Lamps Features

The interior lamps system features the following functions:

- An illuminated entry feature that illuminates the courtesy lamps when entering the vehicle or activating the remote keyless entry system.
- An illuminated exit feature that illuminates the courtesy lamps when the ignition key has been removed from the ignition.
- An inadvertent power feature that supplies voltage to all interior lamps after the ignition is turned OFF. The inadvertent power feature will deactivate all interior lamps after 10 minutes to prevent battery rundown.
- A theater dimming feature that will slowly dim the interior lamps from full brightness to OFF.
- Individual switches for control of each interior lamp that is not illuminate with the interior lamp switch.

Courtesy Lamps (−YF2/YF7)

When any one of the doors is opened, ground is applied through the door latch door open switch and the door open switch signal circuit to the BCM indicting the door open position. In response to this signal, the BCM then applies battery voltage through the courtesy lamp supply voltage circuits illuminating the courtesy lamps.

Courtesy Lamps (+YF2/YF7)

When any one of the doors is opened, ground is applied through the door latch door open switch and the door open switch signal circuit to the BCM indicting the door open position. In response to this signal, the BCM then applies battery voltage to the courtesy lamp relay control circuit energizing the UPFITTR CTSY LAMPS PCB Relay. With the relay energized. battery voltage is applied through the switch side of the relay and the supply voltage circuits illuminating the courtesy lamps.

Courtesy Lamps Manual Operation

The courtesy lamps can be manually turned ON by the IP dimmer switch. When the dimmer switch is placed in the DOME position, ground is applied through the dimmer switch and the courtesy lamp switch ON signal circuit to the BCM indicating the courtesy lamps ON request. In response to this signal, the BCM then applies battery positive voltage through the courtesy lamp supply voltage circuits illuminating the courtesy lamps listed above. The courtesy lamps ON operation of the dimmer switch will override any BCM operation of the interior lamps already in progress.

Keyless Entry Interior Illumination

When the remote function actuator transmitter is used to unlock the doors, the BCM receives a door-unlock signal. The BCM must have inputs that indicate that the ignition switch is OFF, the courtesy lamp switch is OFF, and all the doors are closed. The BCM will then illuminate the courtesy lamps and will remain illuminated for approximately 25 seconds after the door is closed. If the door locks are activated to the LOCK position, or if the ignition switch is turned to either the RUN or START position, the BCM will turn OFF the courtesy lamps immediately.

Courtesy/Illuminated Exit

The illuminated exit feature will activate the courtesy lamps when the key IN input of the BCM transitions from an active state to an inactive state (removing the ignition key). When the key is removed from the ignition, the key IN input to the BCM becomes inactive. The BCM will illuminate the courtesy lamps for approximately 25 seconds.

Theater Dimming

The theater dimming feature that will slowly dim the interior lamps from full brightness to OFF. The following actions will over ride the theater dimming feature causing the courtesy lamps to deactivate immediately if no other BCM function commands the courtesy lamps ON:

- A transition from active to inactive of the interior lamps switch, turning OFF the interior lamps switch
- A LOCK command from the remote keyless entry system
- A last door closed locking function, locking and closing all the doors

Underhood Compartment Lamp

The BCM supplies battery positive voltage through the inadvertent power courtesy lamps circuit to the underhood compartment lamp. When the hood is opened, the underhood compartment lamp switch closes to ground and the lamp illuminates.

Dome/Reading Lamps

The dome/reading lamp is a duel purpose lamp that can be illuminated two different ways. First, the lamp can be turned ON during courtesy lamp operation as described above. Second, the lamps can be turned ON individually for reading lamp operation by the lamp switch. The BCM supplies battery voltage through the inadvertent power courtesy lamp circuit to the dome/reading lamp for reading lamp operation only.

Sunshade Vanity Mirror Lamps

The BCM supplies battery voltage through the inadvertent power courtesy lamps circuit to the left and right vanity mirror lamps. When the vanity mirror cover on the sunshade is opened, the vanity mirror lamp switch is closed to ground and the lamp illuminates.

Interior Lamps Dimming

The second interior lighting group includes lamps which may be dimmed. This group may use a combination of vacuum fluorescent (VF) illumination, LED illumination and incandescent lamps.

- Headlamp switch
- Tow/haul switch
- Traction control switch
- HVAC control module
- Driver window switch
- Driver power door lock switch
- Auxiliary blower motor switch
- Front passenger window switch
- Front passenger door lock switch
- Front auxiliary HVAC control assembly
- Rear auxiliary HVAC control assembly
- Steering wheel controls
- Inflatable restraint I/P module disable switch
- Driver information center (DIC) display switch
- Radio

When the ignition switch is turned to the RUN position, the instrument panel cluster (IPC), radio VF display, and the HVAC control assembly turns ON at maximum brightness. When the headlamp switch is in the PARK or HEADLAMP ON position, all incandescent and LED back lighting turn ON at the dimming level indicated by the instrument panel (I/P) dimmer switch. The dimmer switch is used to increase and decrease the brightness of the interior backlighting components. The BCM supplies a voltage reference through the I/P dimming voltage reference circuit to the interior lamp dimmer switch, which is part of the headlamp switch. When the dimmer switch is placed in a desired brightness position, reference voltage is applied through the dimmer switch rheostat and the I/P lamps dimmer switch signal circuit to the BCM. The BCM interprets this voltage signal, then applies a pulse width modulated (PWM) voltage through the I/P lamps supply voltage circuits and the LED dimming supply circuit to all related interior backlighting lamps illuminating them to the desired level of brightness.

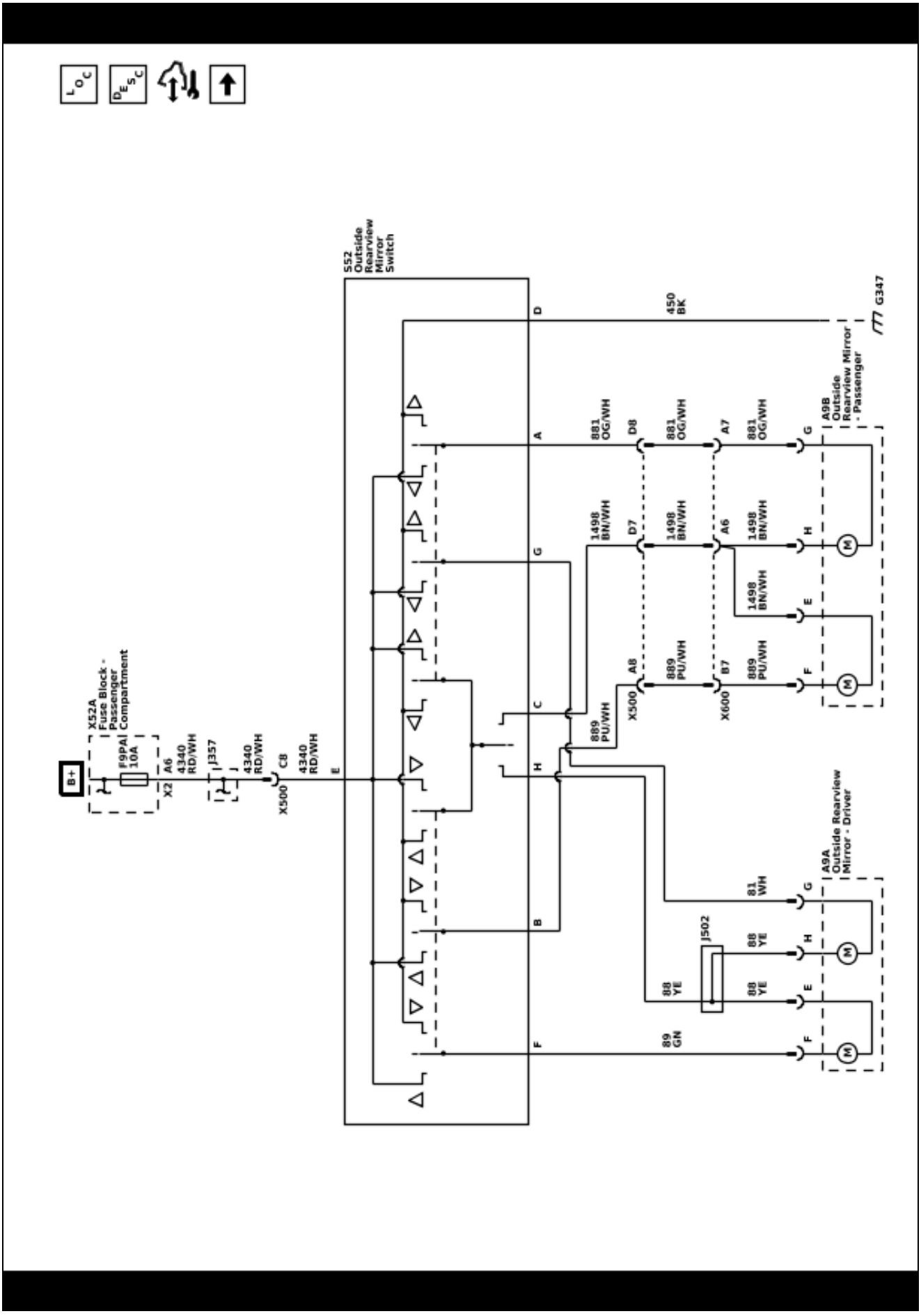
Battery Rundown Protection / Inadvertent Power

The BCM controls the lighting system through circuits that enable the exterior lamp functions of the park lamps, the head lamps, the fog lamps, and the interior lamps. The BCM opens these enabling circuits 10 minutes after the ignition switch is turned OFF with no lamp switch activity. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this time period, the timer resets for another 10 minutes.

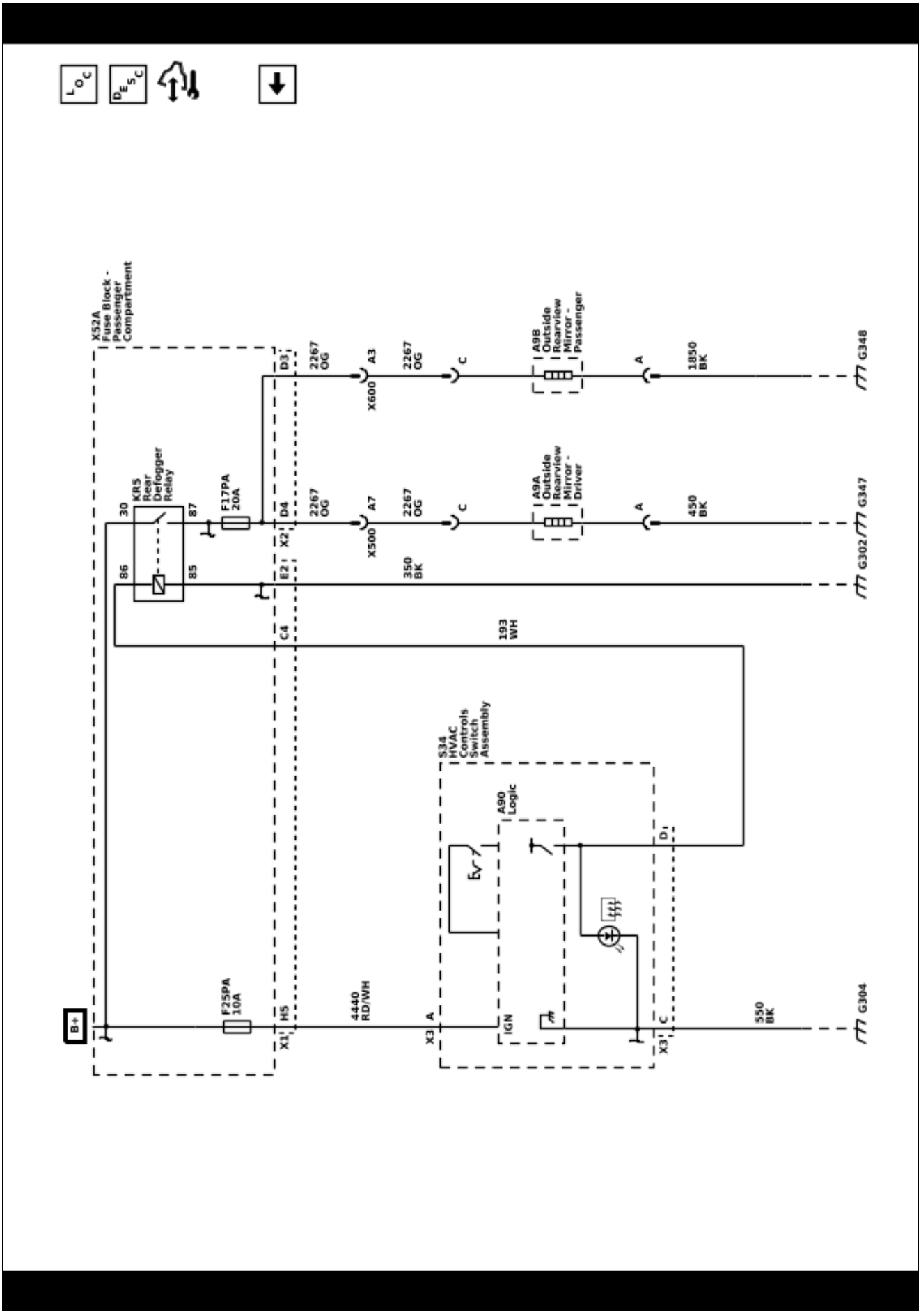
Mirrors

Schematic and Routing Diagrams

Outside Rearview Mirror Schematics (Pan and Tilt (DE5))



Outside Rearview Mirror Schematics (Heated Mirrors (DE5))



Description and Operation

Outside Mirror Description and Operation

Outside Mirror System Components

The power mirror system consists of the following components:

- Power mirror switch
- Selector switch
- Left outside power mirror
- Right outside power mirror
- OSRVM 10A fuse
- HVAC control module
- Left outside power mirror
- Right outside power mirror

Each of the outside power mirrors contains two reversible motors. The vertical motor operates the up and down directions and the horizontal motor operates the left and right directions. Each of the power mirror motors are circuit breaker protected.

Power Mirror System Controls

The power mirror switch incorporates a mirror select switch and a four position mirror direction switch.

The mirror select switch allows the operator to select the mirror to be moved by rotating counterclockwise to the L position, left outside power mirror, or rotating clockwise to the R position, right outside power mirror.

The mirror direction switch is a 4 position switch that allows the operator to move the selected mirror up, down, left or right.

Power Mirror System Operation

The power mirror switch receives power through the battery supply voltage circuit and the OSRVM fuse. The power mirror switch also receives a constant ground.

The four positions of the direction switch have dual switch contacts. Each of the contacts are connected to opposing sides of the appropriate power mirror motors through the selector switch. The selector switch interrupts or completes these circuits depending on the position of the selector switch (L or R).

If the selector switch is placed in the L position and the up switch is depressed, battery voltage will be supplied to the left outside power mirror vertical motor through the left mirror motor up direction circuit and return to the power mirror switch through the mirror motor common circuit then to ground and the mirror will move up. If the down switch is depressed, the common circuit supplies battery voltage and the left mirror motor up direction circuit completes the path to the power mirror switch then to ground and the mirror will move down.

The remainder of the mirror functions operate in the same manner as described above. The thing to remember is, that by placing the power mirror switch in opposing positions (left/right or up/down) will reverse the polarity of the mirror motor, utilizing the same circuits and the power mirror will move accordingly.

Heated Mirror System Controls

The heated mirror system is activated by depressing the rear window defogger switch, which is part of the HVAC control module. For further information on the rear window defogger operation, refer to *Rear Window Defogger Description and Operation on page 2-6*.

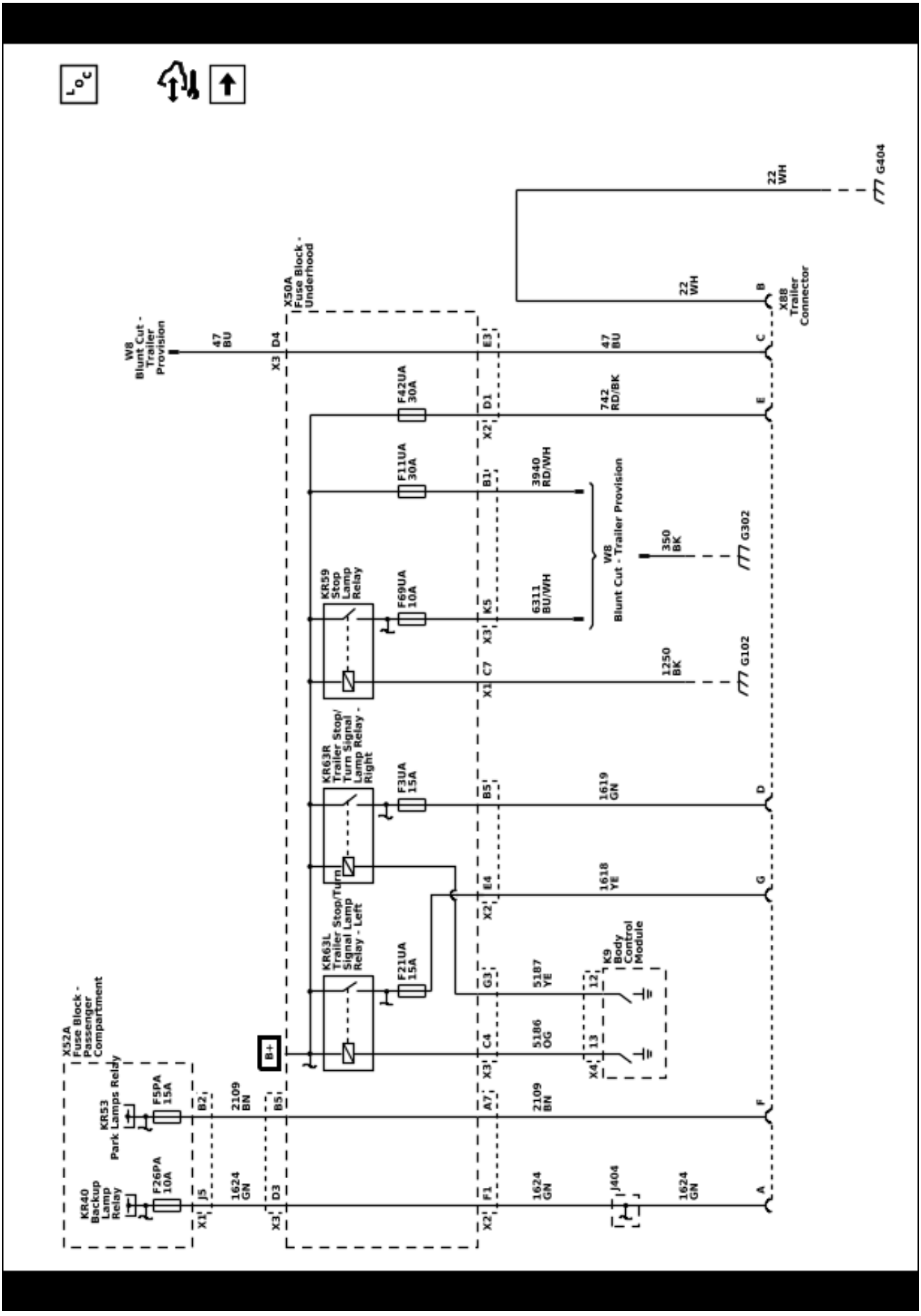
Heated Mirror System Operation

The heated mirror system operates in parallel to the rear window defogger. Each outside rearview mirror contains a heating element that is connected to a constant ground source. When the rear window defogger system is active, battery voltage is available to the outside rearview mirrors through the heated mirror supply voltage circuit. The mirrors will heat up to remove ice, snow or frost and will automatically deactivate when the rear defogger system has timed out, approximately 10 minutes.

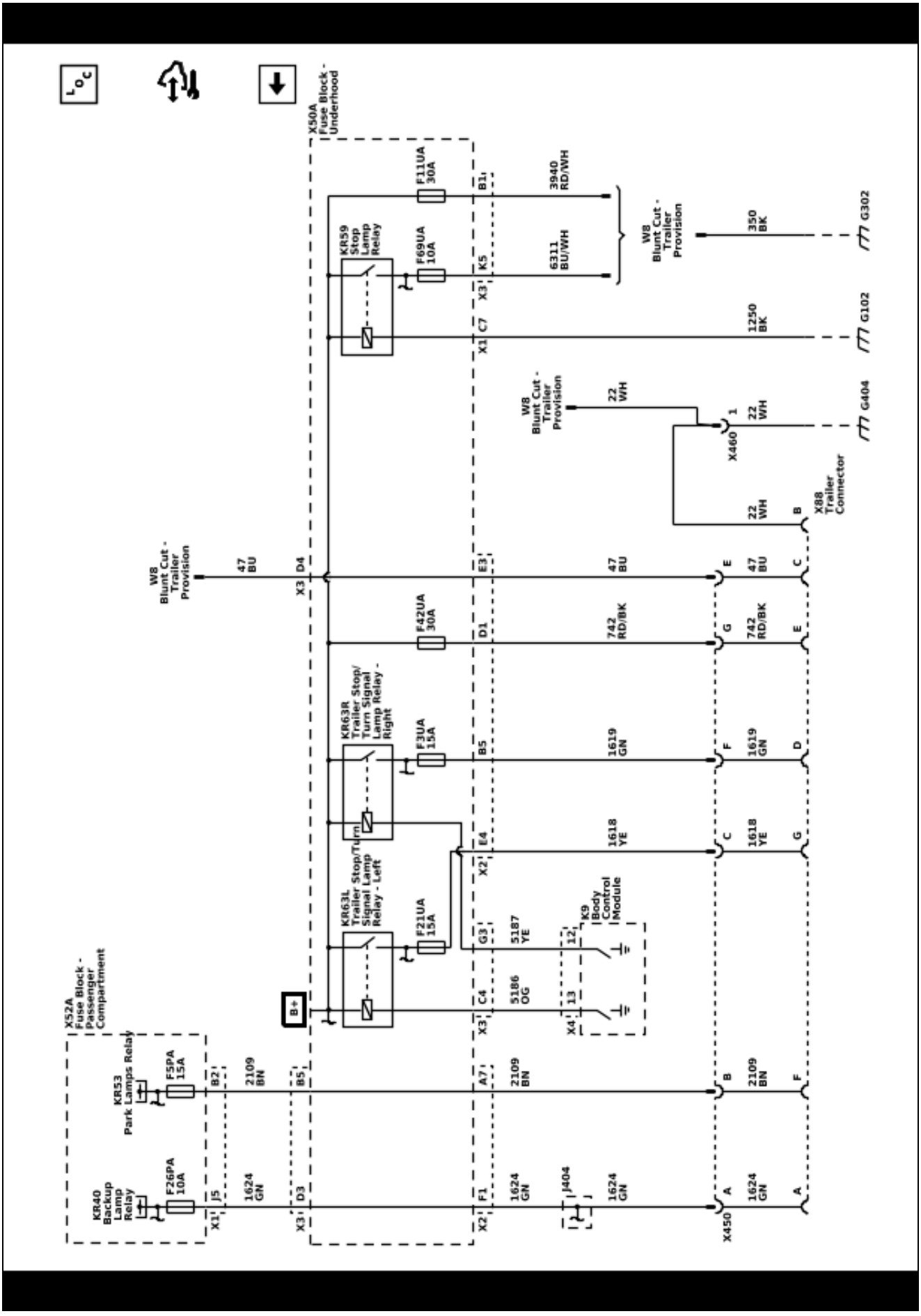
Trailering Systems

Schematic and Routing Diagrams

Trailering Systems Schematics (Trailer Connector/Provision (UY7 - NE7))



Trailering Systems Schematics (Trailer Connector/Provision (UY7 & NE7))



Description and Operation
Trailering Description and Operation

Trailer Lamps

Backup Lamps

With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message to the K9 Body Control Module (BCM). The message indicates that the gear selector is in the reverse position. The BCM responds by applying voltage to the KR40 Backup Lamp Relay control circuit. With the backup lamp relay energized, the relay switch contacts close and battery voltage is applied through the backup lamp fuse to the trailer backup lamp control circuit which illuminates the trailer backup lamp(s). Once the driver moves the gear selector out of the reverse position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamp relay control circuit. The engine must be running for the backup lamps to operate.

Park Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the K9 Body Control Module (BCM). The BCM responds by applying ground to the KR53 Park Lamps Relay control circuit. With the park lamp relay energized, the relay switch contacts close and battery voltage is applied through the park lamp fuse to the trailer park lamp control circuit which illuminates the trailer park lamps.

Stop Lamps

For stop lamp operation, the left and right trailer stop/turn signal lamp relay's are supplied with battery voltage at all times. The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The K9 Body Control Module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM responds by applying ground to the left and right stop lamp relay control circuits. With the left and right trailer stop/turn signal lamp relay's energized, the relay switch contacts close and battery voltage is applied through the left and right trailer stop/turn signal fuse's to the trailer stop lamp control circuits which illuminates the trailer stop lamps.

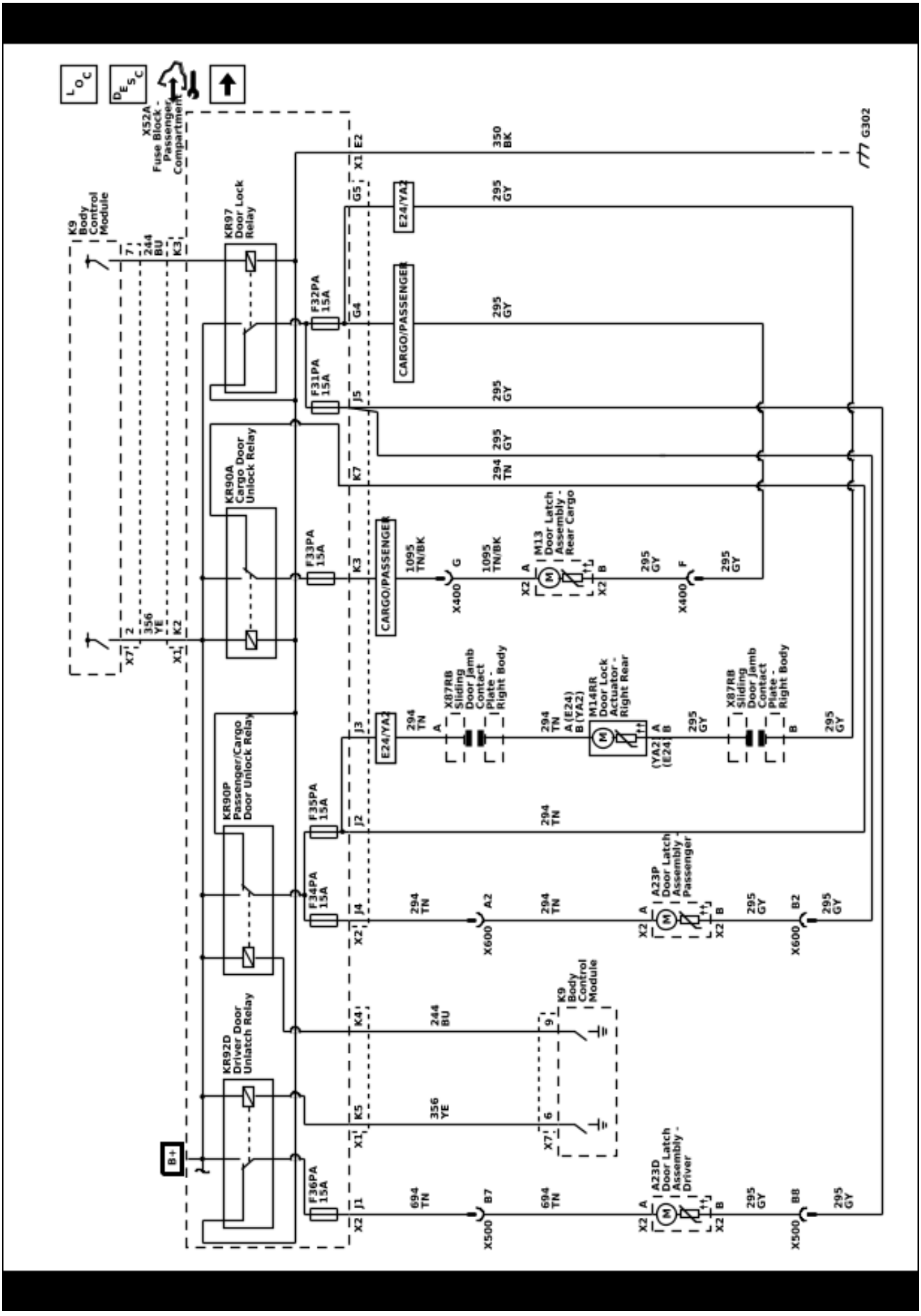
Turn Signal Lamps

For turn signal lamp operation, the left and right trailer stop/turn signal lamp relay's are supplied with battery voltage at all times. Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the K9 Body Control Module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating ground to the appropriate left or right trailer stop/turn signal lamp relay control circuits energizing the relay's in an ON and OFF cycle. With the left or right trailer stop/turn signal lamp relay's energized, the relay switch contacts cycle ON and OFF applying battery voltage through the left or right trailer stop/turn signal fuse to the trailer turn signal lamp control circuits which illuminates the trailer turn signal lamps in an ON and OFF cycle.

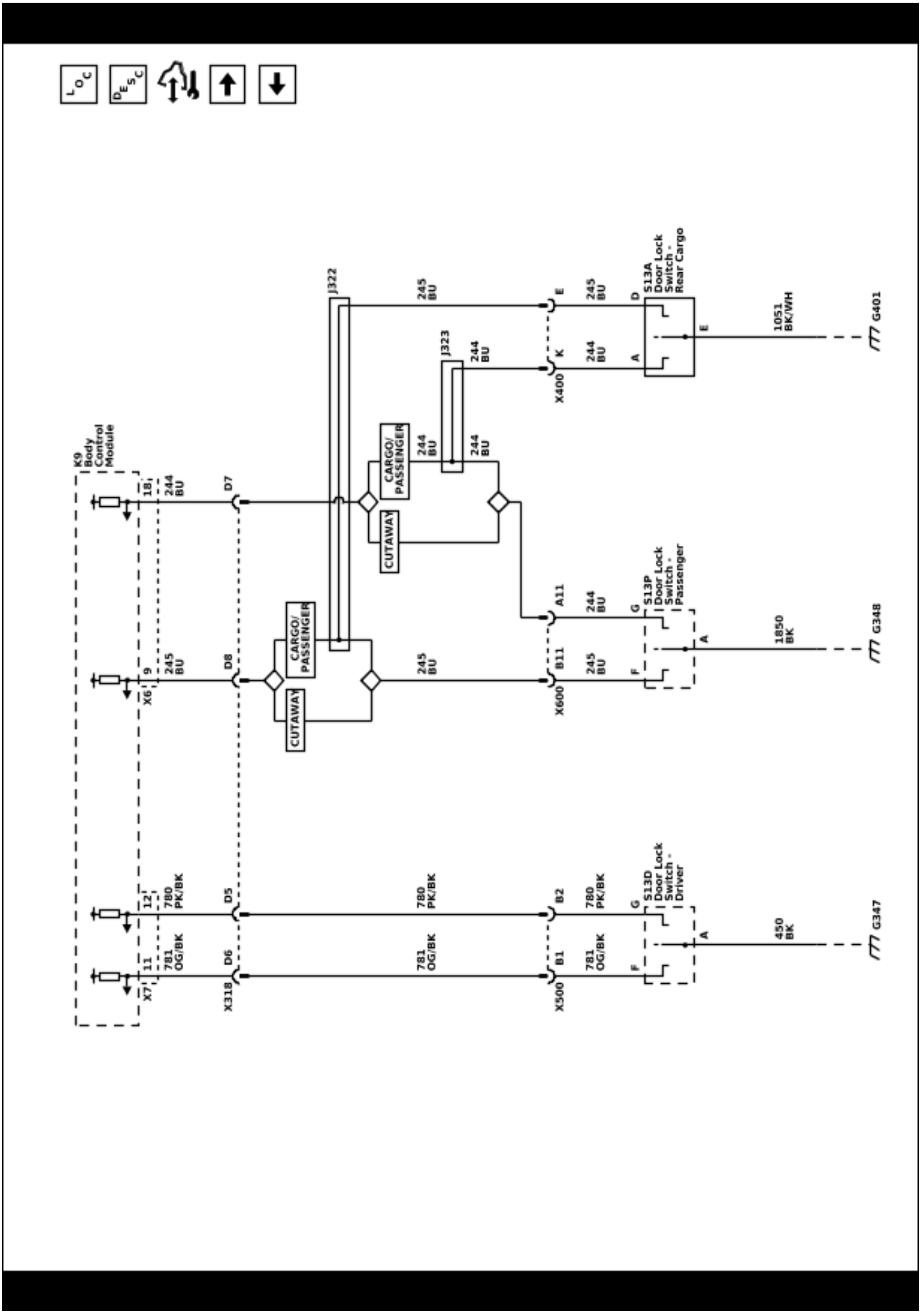
Vehicle Access

Schematic and Routing Diagrams

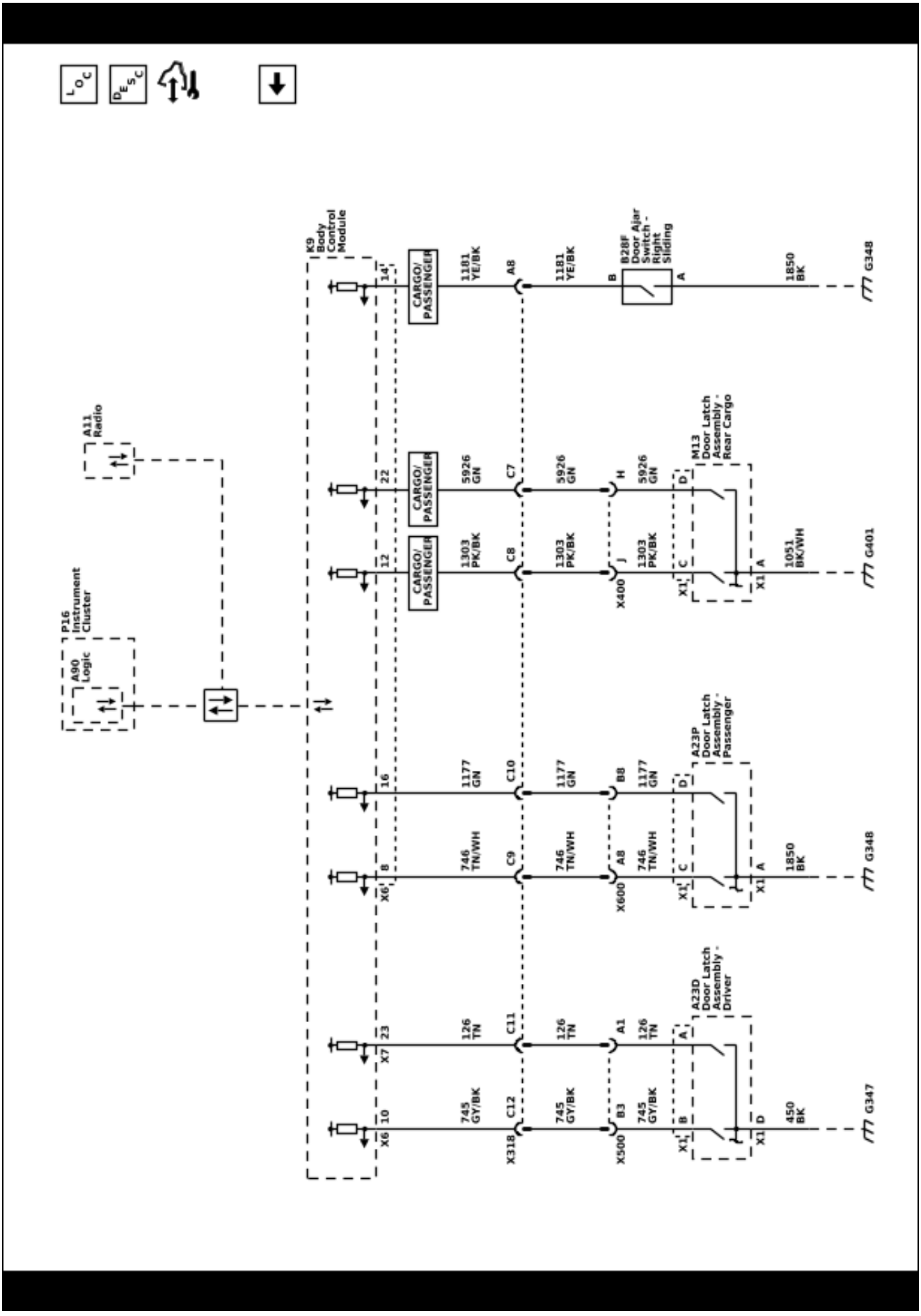
Door Lock/Indicator Schematics (Lock/Unlock Control (AU3))



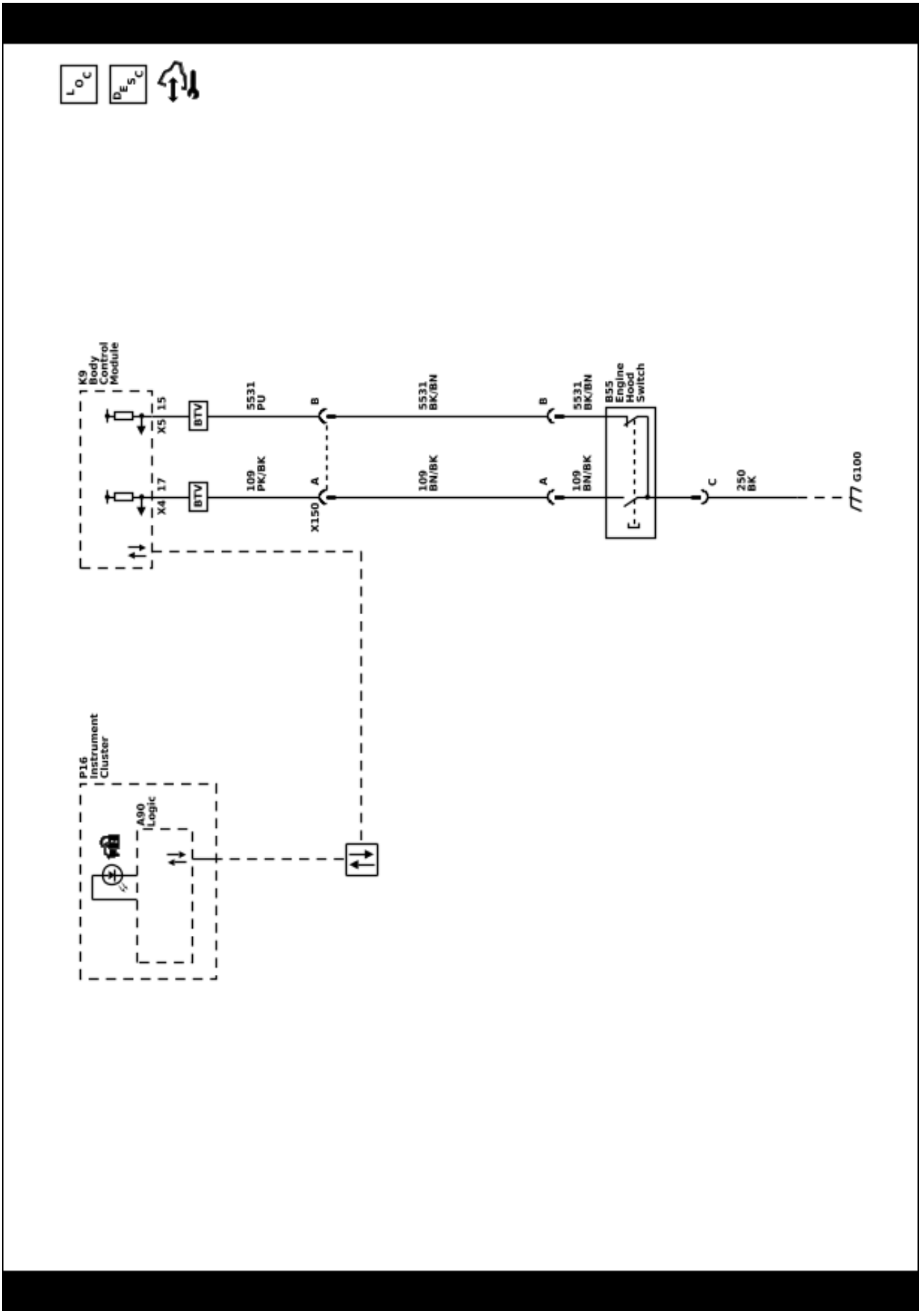
Door Lock/Indicator Schematics (Door Lock Switches (AU3))



Door Lock/Indicator Schematics (Door Ajar Switches)



Hood Latch Schematics (Hood Latch)



Description and Operation

Door Ajar Indicator Description and Operation

Door Ajar Indicator System Components

The door ajar indicator system consists of the following components:

- The body control module (BCM)
- The instrument panel cluster (IPC)
- The driver information center (DIC)
- The door ajar switch

Door Ajar Operation

The body control module (BCM) receives a discrete input from the door ajar switch to indicate the status of the door. The BCM then communicates this status to the instrument panel cluster (IPC) via GMLAN serial data. The IPC, upon receipt of this message, will illuminate the door ajar message in the driver information center (DIC) and also send a GMLAN serial data message to the radio to activate the door ajar audible warning when the following conditions are met:

- The transmission is shifted out of PARK.
- The vehicle speed is greater than 8 km/h (5 mph).

Hood Ajar Indicator Description and Operation

Hood Ajar Switch

The hood ajar switch provides closure status of the hood to the body control module (BCM) and on vehicles equipped with any hybrid drivetrain or start stop technology a power train module. The switch is integrated into the hood latch assembly. The BCM, and other module if equipped, monitor the voltage on their circuit as it passes through the different positions of the hood switch.

The BCM uses the hood ajar switch as a content theft deterrent alarm trigger.

Hood Ajar Indicator/Message

When the hood is ajar, a message is displayed on the driver information center (DIC) or the hood ajar indicator will be illuminated.

Power Door Locks Description and Operation

Door Lock System Components

The power door lock system consists of the following components:

- Driver door lock switch
- Front passenger door lock switch
- Rear cargo door lock switch
- Door lock relay
- Passenger door unlock relay
- Driver door unlock relay
- Cargo door unlock relay
- Body Control Module (BCM)
- Reversible door lock actuators in each of the doors
- DRV LKS 10A fuse, driver door unlock relay supply voltage
- CARGO UNLK 10A fuse, cargo door unlock relay supply voltage
- DOOR LKS 20A fuse, door lock relay and passenger door unlock relay supply voltage

Door Lock System Controls

The power door lock system can be controlled by any of the following:

- A power door lock or unlock switch activation
- A keyless entry transmission
- A lock out prevention function
- A last door locking function

Driver, Passenger and Cargo Door Lock Operation

When any of the door lock switches are placed in the lock position, a ground signal is applied to the BCM through the door lock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the door lock relay through the door lock relay control circuit. Since the other side of the door lock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DOOR LKS fuse through the battery voltage circuit. Voltage is then applied to the lock side of the door lock actuators through the door lock actuator lock circuits. Since the other side of the all the door lock actuators are connected to the normally closed contacts of their respective unlock relays to ground, the doors lock.

The lock function can also be accomplished by the BCM supplying ground to the door lock relay control circuit by either of the following:

- A keyless entry lock transmission
- A last door lock function

Driver Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the driver door unlock relay through the driver door unlock relay control circuit. Since the other side of the driver door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DRV LKS fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the driver door lock actuator through the driver door lock actuator unlock control circuit. Since the other side of the the driver door lock actuator is connected to the normally closed contacts of the door lock relay to ground, the driver door unlocks.

The driver door unlock function can also be accomplished by the BCM supplying ground to the driver door unlock relay control circuit by either of the following:

- A keyless entry unlock transmission
- A lock out prevention function

Passenger Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the passenger door unlock relay through the door unlock relay control circuit. Since the other side of the door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DOOR LKS fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the passenger door lock actuators through the door lock actuator unlock control circuits. Since the other side of the the door lock actuators are connected to the normally closed contacts of the door lock relay to ground, the passenger doors unlock.

The door unlock function can also be accomplished by the BCM supplying ground to the passenger door unlock relay control circuit during a keyless entry unlock transmission.

Cargo Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the cargo door unlock relay through the cargo door unlock relay control circuit. Since the other side of the cargo door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the CARGO UNLK fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the cargo door lock actuator through the door lock actuator unlock control circuit. Since the other side of the the cargo door lock actuator is connected to the normally closed contacts of the door lock relay to ground, the cargo door unlocks.

The cargo door unlock function can also be accomplished by the BCM supplying ground to the cargo door unlock relay control circuit during a keyless entry unlock transmission.

Delay Locking Operation

This feature allows the operator to lock all the doors from a door lock switch with the side doors(s) open. The side cargo doors have contact plates that complete the power door lock and unlock control circuits, among others, when the side cargo doors are closed, and interrupt these circuits when the doors are open. When a lock function occurs and the BCM senses an active state on any door ajar switch signal circuit the driver, front passenger and cargo doors will lock as described. The BCM continues to monitor door ajar switch signal circuits. When the BCM senses an inactive state, door closed, the BCM will cycle the door lock relay again after approximately 5 seconds to perform another lock function, thus locking the side cargo door(s).

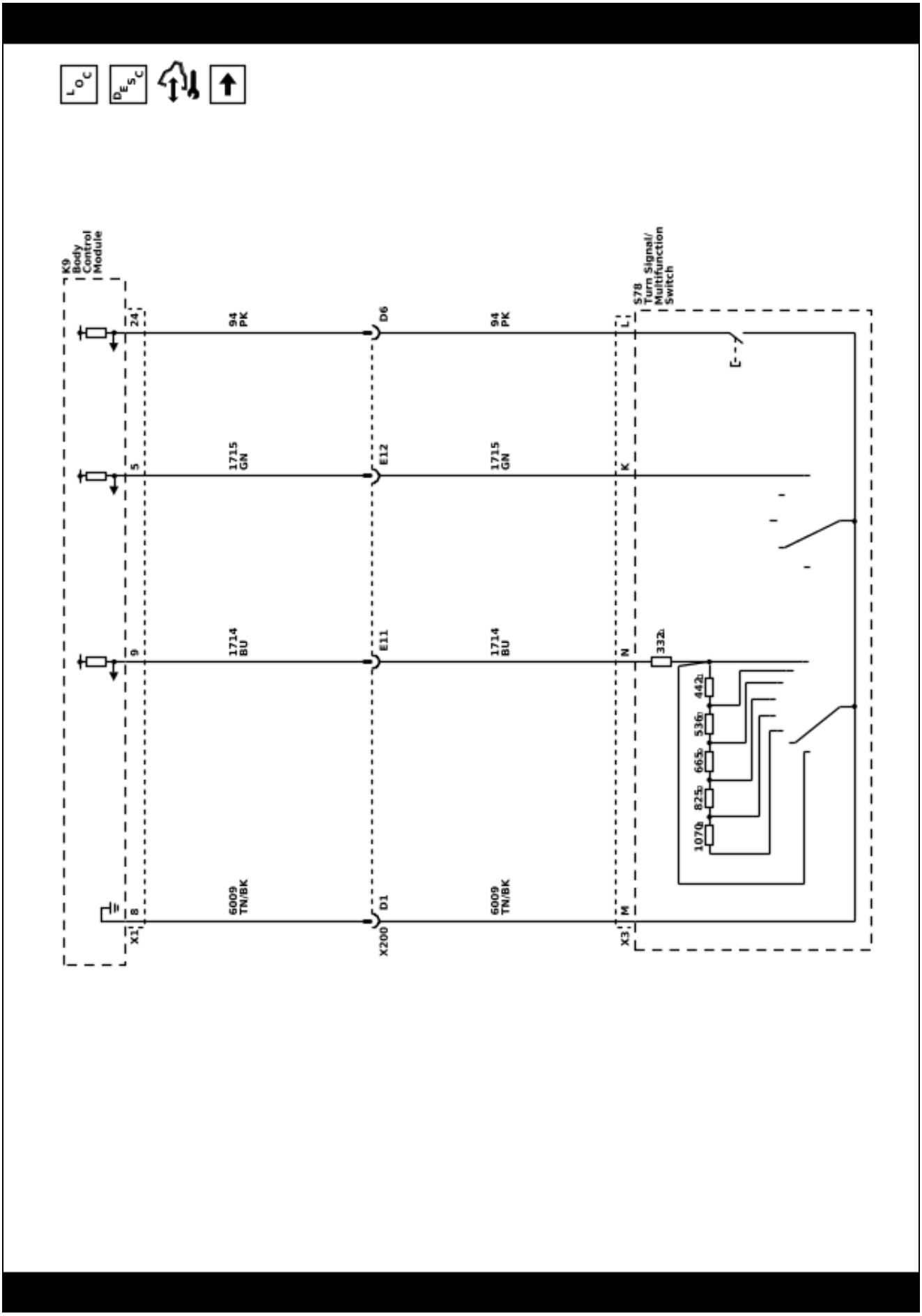
Lockout Prevention

This feature prevents the locking of the driver door if the ignition key is left in the ignition lock cylinder. If a lock function occurs from any door lock switch and the BCM senses a door ajar and the key in ignition switch signal circuit is in the yes state, the BCM will cycle the door lock relay to lock the doors and then cycle the driver door unlock relay to unlock the driver door.

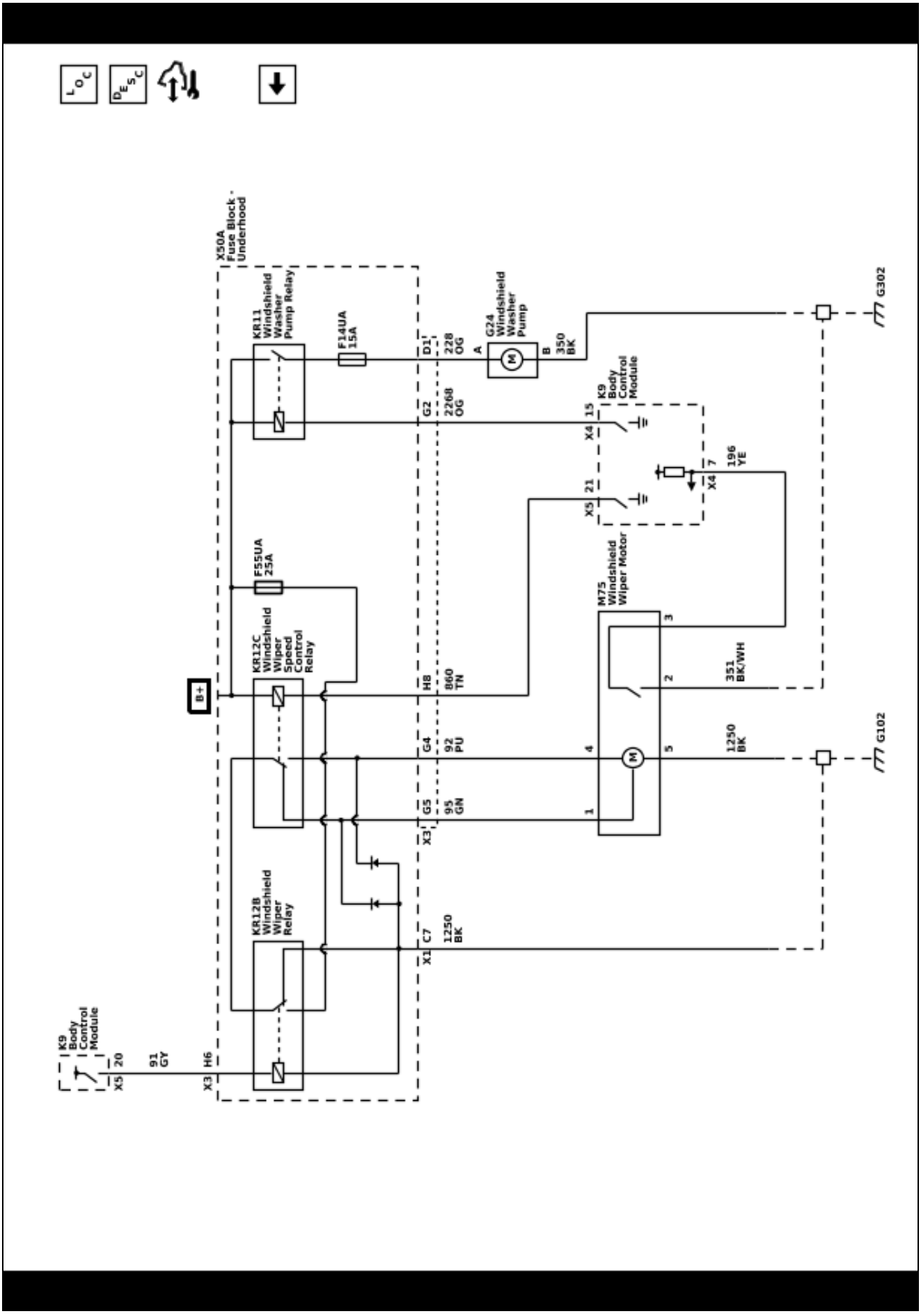
Wipers and Washers

Schematic and Routing Diagrams

Wiper/Washer Schematics (Wiper Controls)



Wiper/Washer Schematics (Wiper and Washer Motor Control)



Description and Operation

Wiper/Washer System Description and Operation (Wiper and Washers)

Wiper/Washer System Components

The Wiper/Washer System consists of the following components:

- Windshield wiper/washer switch
- Body control module (BCM)
- WPR Relay
- WPR HI Relay
- Windshield wiper motor
- Windshield washer fluid pump
- Windshield washer fluid level switch
- Rain sensor module
- Instrument panel cluster (IPC)
- WPR Fuse 25 A
- WSW/PUMP Fuse 10 A
- RAP Fuse 10 A

Refer to Master Electrical Component List.

Power and Grounds

With the ignition in the ON position, accessory voltage is supplied through the 25A WPR fuse to the WIPER relay, the WIPER HI relay and the WSH relay that are all located in the underhood fuse block. Refer to *Wiper/Washer Schematics on page 2-44*.

G101 provides ground for the windshield wiper motor. G104 provides ground for the WPR relay, the WPR HI relay, the windshield washer fluid pump and the windshield washer fluid level switch.

Modes of Operation

The normal wiper system function positions are as follows:

- MIST
- DELAY
- MANUAL LOW
- MANUAL HIGH
- WASH

Automatic Modes of Operation

- AUTOMATIC DELAY
- AUTOMATIC LOW
- AUTOMATIC HIGH

Automatic low speed and automatic high speed wiper modes are continuous wiper operations that are controlled by the outside moisture sensor. Automatic low and high speed operation is utilized when the amount of precipitation on the windshield exceeds the automatic delay or low threshold.

Moisture Sensitive Wipers

The outside moisture sensor monitors moisture accumulation on the windshield and uses a windshield wiper/washer switch status input to provide wipe commands to the body control module (BCM). The DELAY positions on the wiper/washer switch are used to activate the AUTOMATIC rain sensing operating mode. They are also used to adjust the level of sensitivity to moisture accumulation, which determines the dwell time for commanding a wiper motor wipe cycle.

Accessory voltage is supplied to the outside moisture sensor through the 10A RAP Fuse, located in the rear fuse block. The sensor is grounded through the ground circuit and G402. Whenever the ignition is in the run or accessory positions, the BCM sends the wiper/washer switch status using a pulse width modulation (PWM) signal through the outside moisture sensor signal 1 circuit to the outside moisture sensor. When a wipe cycle is needed, the moisture sensor sends a PWM voltage signal through the moisture sensor signal 2 circuit back to the BCM requesting the wiper operation.

The outside moisture sensor uses the moisture sensor signal 2 circuit to command wiper motor wipe cycles and to confirm the moisture sensor signal 1 is being received. If at anytime communication between the outside moisture sensor and BCM is lost, the BCM will use the inputs from the windshield wiper/washer switch in the delay positions to operate the wiper motor at continuous variable delay intervals.

Low Speed Operation

When the wiper switch is in the low speed position, ground is applied through a resistor internal to the switch and the wiper switch low signal circuit to the body control module (BCM). In response to this signal, the BCM energizes the WPR relay by applying battery voltage through the wiper relay control circuit to the coil side of the relay. This allows battery positive voltage from the WPR fuse to flow through the switch input side of the WPR relay and out to the switch input side of the WPR HI relay. Since the wiper high relay is de-energized and its switch contacts are normally closed to the low speed control circuit of the windshield wiper motor, the motor will operate at low speed.

Wiper motor low speed operation and the WPR relay can also be commanded ON/OFF by using a scan tool.

Mist Operation

Windshield wiper/washer system MIST operation is identical to wiper Low operation, except that the mist switch is a press and release type switch. When the wiper switch is moved to the mist position and released, low speed wiper motor operation is started and will continue until 1 wipe cycle is complete. If the wiper switch is moved to the mist position and held, the wiper motor will operate in the low mode until the switch is released.

Delay Operation

Windshield wiper delay operation is a low speed wiper motor function with a variable delay interval between the wiper motor cycles. The delay interval is determined by a series of 6 resistors within the wiper/washer switch. The body control module (BCM) monitors the wiper switch low signal circuit to determine the delay interval between the low speed wiper motor wipe cycles.

High Speed Operation

When the wiper switch is in the high speed position, ground is applied through the windshield wiper switch high signal circuit to the body control module (BCM) indicating the wiper high speed request. In response to this signal, the BCM then energizes the WPR relay, as stated above, and the WPR HI relay by applying ground through the control circuit to the coil side of the relay. With the wiper high relay energized and its switch contacts closed to the high speed control circuit of the wiper motor, the motor will operate at high speed.

The wiper high speed relay can also be commanded ON/OFF by using a scan tool. However, before commanding the wiper motor high speed mode ON/OFF using a scan tool, the WPR relay must be energized by placing the wiper switch in the low speed position. .

Wash Operation

When the windshield Wash switch is pressed, ground is applied through the switch contacts and the windshield washer switch signal circuit to the body control module (BCM) indicating the windshield wash request. The BCM then energizes the WPR relay, as stated above, and the WSH relay by applying ground through the control circuit to the coil side of the relay. With the wash relay energized, battery voltage from the WPR fuse is applied through the switch side of the relay and out to the control circuit of the windshield washer fluid pump. The wiper motor will operate for 2 wipe cycles after the wash switch is released.

The WSH relay can also be commanded ON/OFF by using a scan tool.

Park Position Operation

Windshield wiper motor park operation is controlled by the body control module (BCM) using an input from the park switch that is located within the wiper motor assembly. The BCM monitors the windshield wiper motor park switch signal circuit, to determine if the windshield wiper blades are at the bottom of the glass. During wiper operation, each time the wiper blades are at the bottom of the glass, the park switch is momentarily closed to ground signaling the BCM the wiper position. When the wiper switch is turned to the OFF position while the wiper motor is somewhere in mid-cycle, the BCM will continue to operate the motor until the wipers reach the park position. If the ignition is turned OFF while the wipers are in mid-cycle, the wipers will stop immediately where they are. The BCM will park the wipers the next time the ignition is turned ON.

Washer Fluid LOW ADD FLUID Message

The WASHER FLUID LOW ADD FLUID message is controlled by the instrument panel cluster (IPC) using an input from the washer fluid level switch. With the ignition in the ON position, the IPC applies ignition voltage through an internal resistor and the windshield washer fluid level signal circuit to the windshield washer fluid level switch. The IPC then monitors this voltage to determine the washer fluid level. With the washer fluid above a determined level, the washer fluid level switch is open and the IPC detects voltage on the signal circuit. When the washer fluid reaches the point where the driver should be informed that the washer fluid is low, the washer fluid level switch closes. When the washer fluid level switch is closed, the washer fluid level signal circuit is pulled low and the IPC displays the WASHER FLUID LOW ADD FLUID message on the driver information center (DIC). In order to prevent the WASHER FLUID LOW ADD FLUID message from being displayed while sloshing is occurring in the washer fluid container, the IPC is programed with a 1 minute delay before changing states of the WASHER FLUID LOW ADD FLUID message during an ignition cycle.

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Section 3

Driver Information and Entertainment

Image Display Cameras 3-3
Schematic and Routing Diagrams 3-3
Image Display Camera Schematics 3-4
Description and Operation 3-5
Rear Vision Camera Description and Operation 3-5

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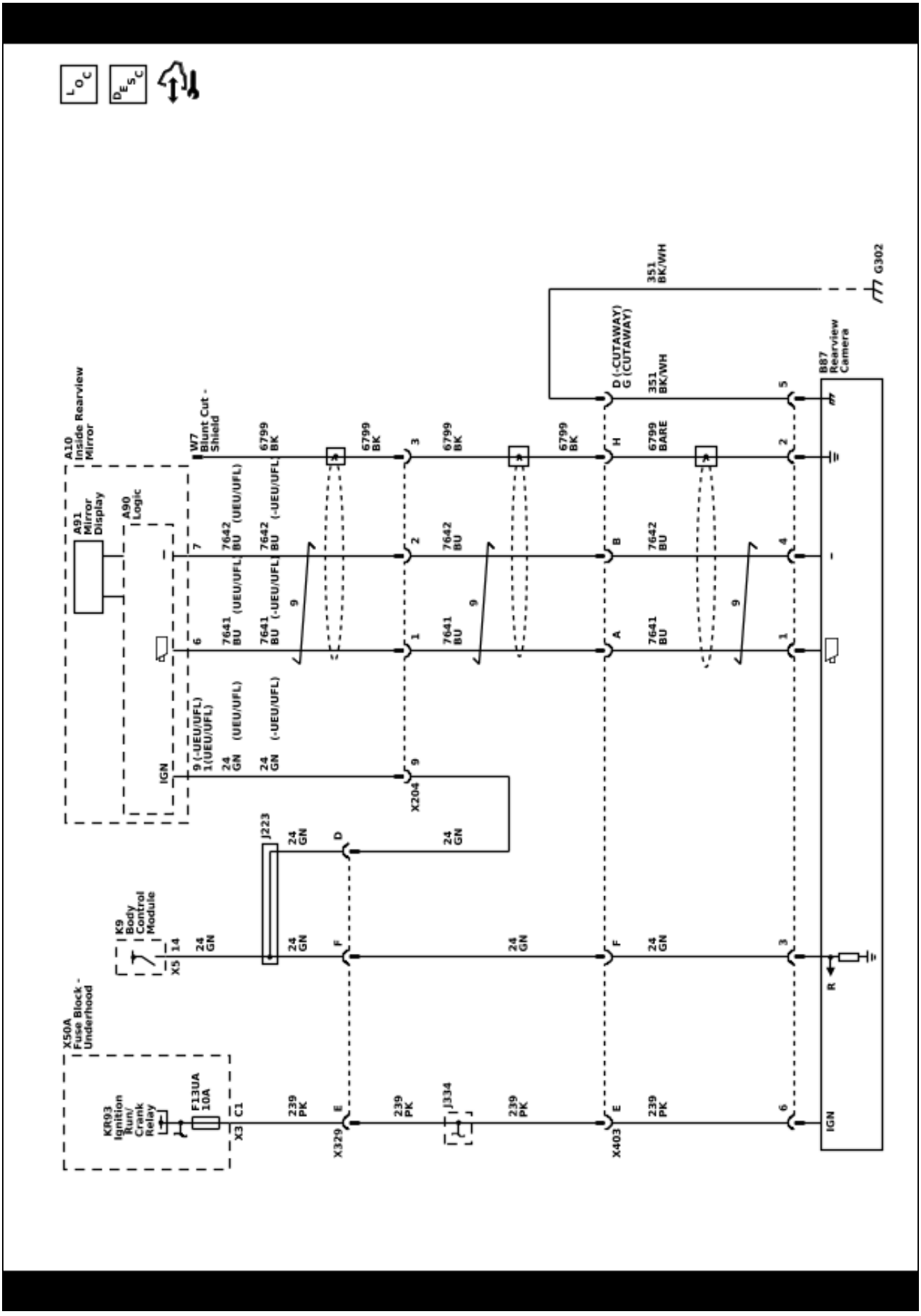
Image Display Cameras

Schematic and Routing Diagrams

Image Display Camera Schematics (Rear Vision Camera (UVC))



Description and Operation

Rear Vision Camera Description and Operation

The rear vision camera system consists of the rearview camera and the infotainment system.

When the transmission is placed into R, 12 V is applied to the reverse lamp control circuit by the body control module (BCM). The rearview camera monitors this circuit and when 12 V is seen, indicating that the transmission is in R, the rearview camera will activate. The rearview camera receives ignition voltage and a constant ground to power the camera. Video signal + and video signal – circuits carry the video image from the rearview camera to the infotainment system. Additionally, the video signal circuits are shielded to prevent any interference which may lead to a loss of video signal resolution and cause a degraded video image. The shield is grounded by the rearview camera.

The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

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Section 4

Engine/Propulsion

Starting, Charging, and Low Voltage Energy Storage 4-3
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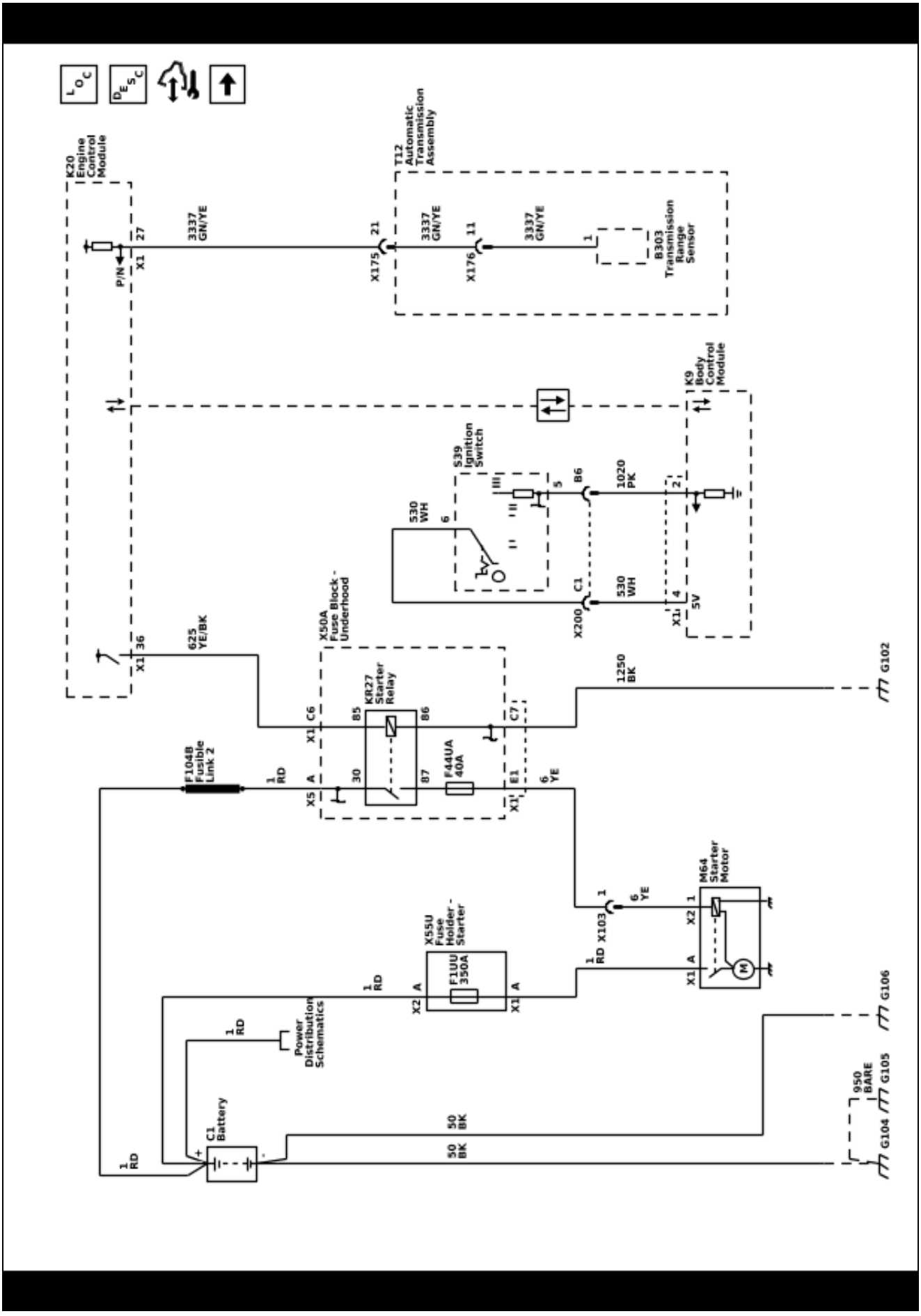
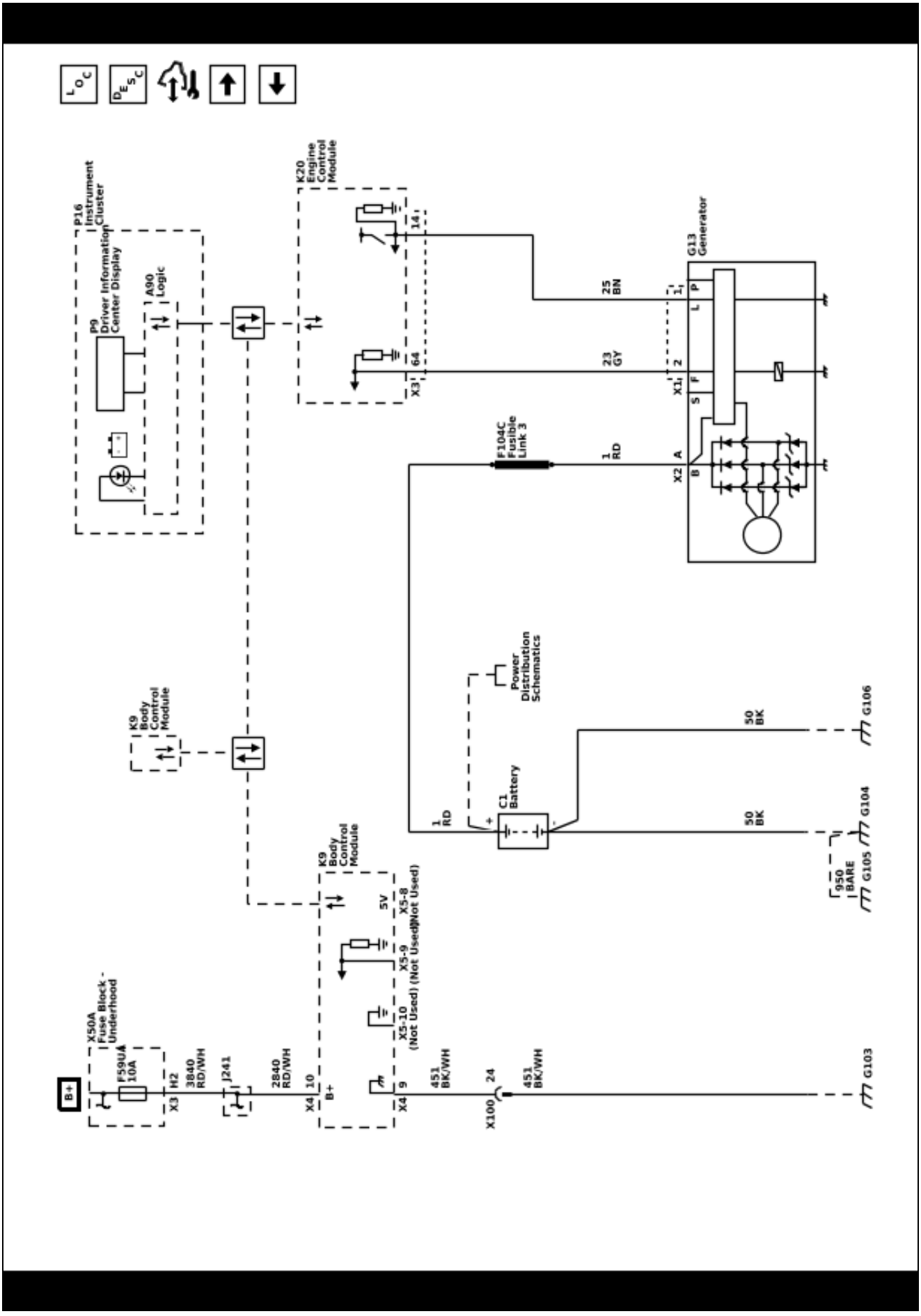
Starting, Charging, and Low Voltage Energy Storage

Schematic and Routing Diagrams

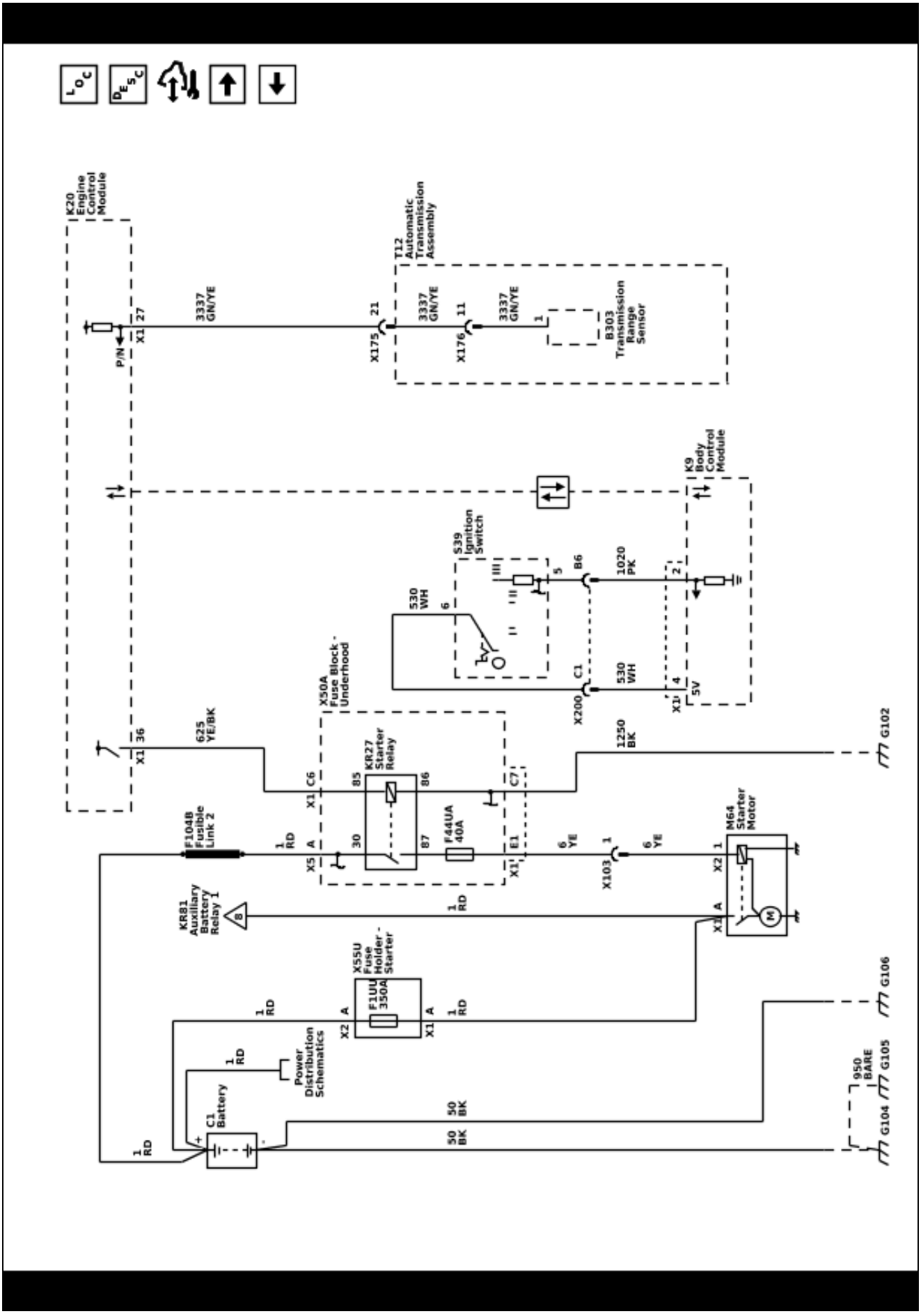
Starting and Charging Schematics (Starting System - One Battery)



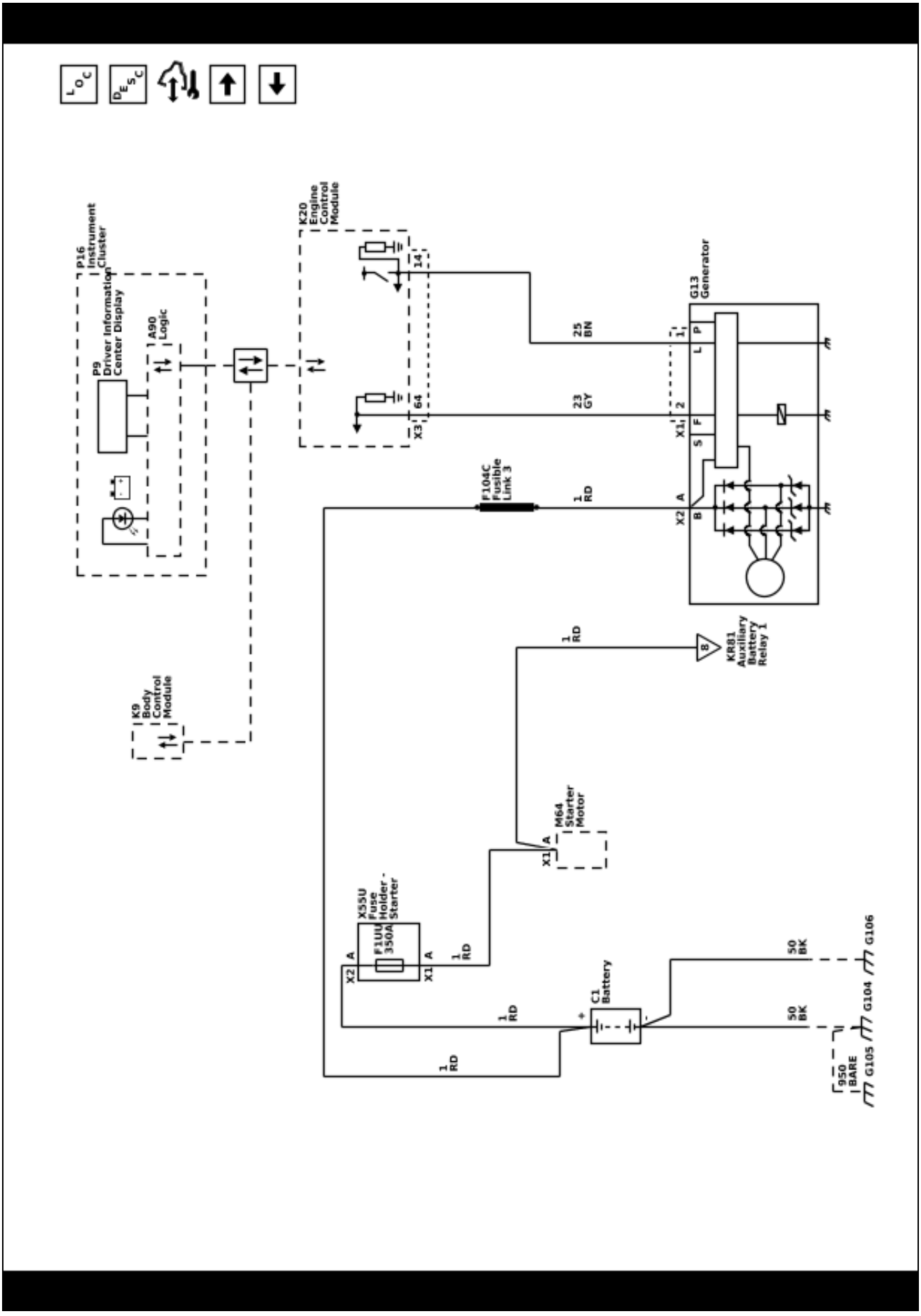
Starting and Charging Schematics (Charging System - One Battery)



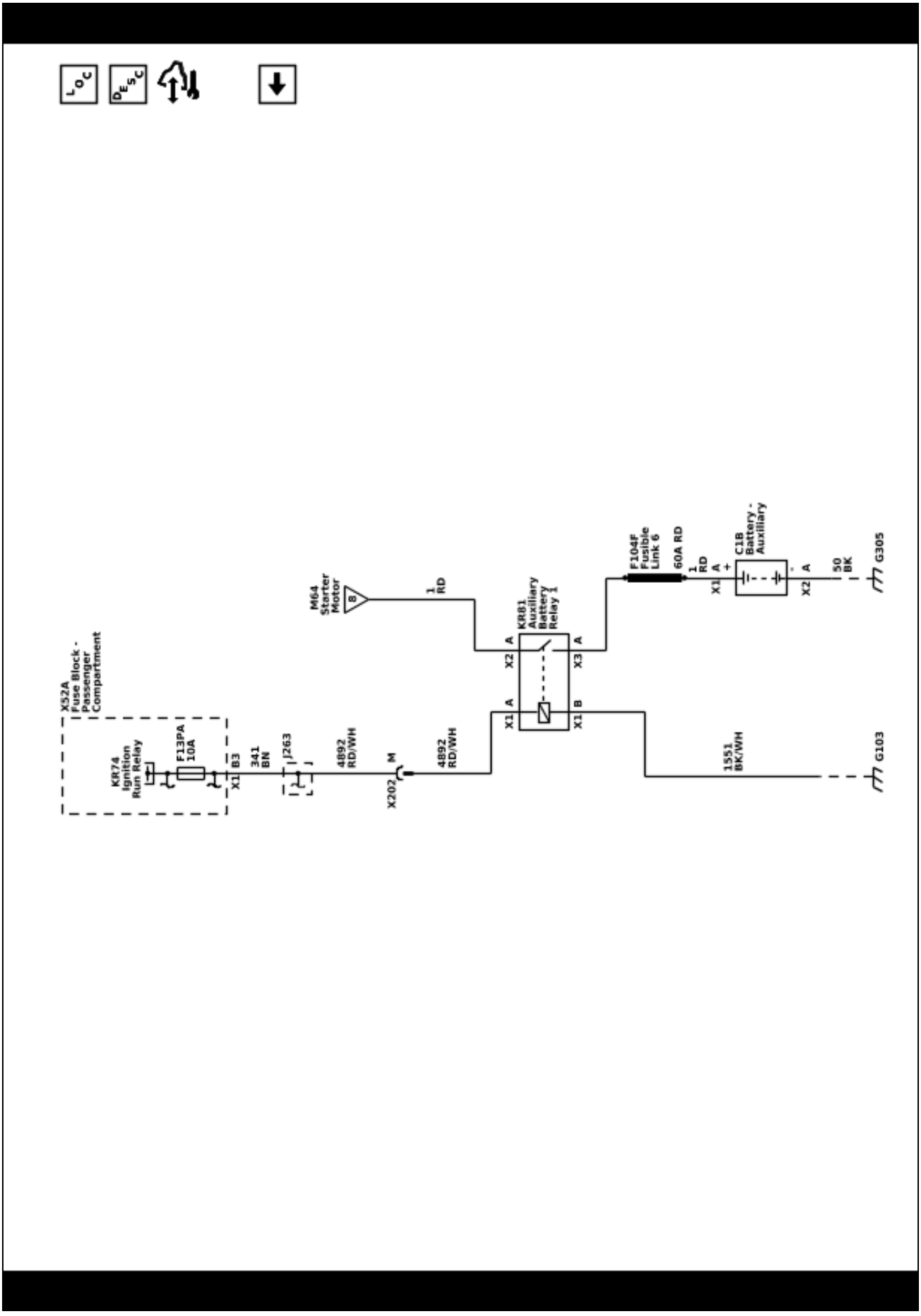
Starting and Charging Schematics (Starting System - Two Batteries)



Starting and Charging Schematics (Charging System - Two Batteries)



Starting and Charging Schematics (Auxiliary Battery Relay and Auxiliary Battery - Two Batteries)



Description and Operation

Battery Description and Operation

Warning: Batteries produce explosive gases, contain corrosive acid, and supply levels of electrical current high enough to cause burns. Therefore, to reduce the risk of personal injury when working near a battery:

- ***Always shield your eyes and avoid leaning over the battery whenever possible.***
- ***Do not expose the battery to open flames or sparks.***
- ***Do not allow the battery electrolyte to contact the eyes or the skin. Flush immediately and thoroughly any contacted areas with water and get medical help.***
- ***Follow each step of the jump starting procedure in order.***
- ***Treat both the booster and the discharged batteries carefully when using the jumper cables.***

Batteries that are no longer wanted must be disposed of by an approved battery recycler and must never be thrown in the trash or sent to a landfill.

Batteries that are not part of the vehicle itself, not the battery under the hood, must only be transported on public streets for business purposes via approved hazardous material transportation procedures.

Battery storage, charging and testing facilities in repair shops must meet various requirements for ventilation, safety equipment, material segregation, etc.

The maintenance free battery is standard. There are no vent plugs in the cover. The battery is completely sealed except for 2 small vent holes in the side. These vent holes allow the small amount of gas that is produced in the battery to escape.

The battery has 3 functions as a major source of energy:

- Engine cranking
- Voltage stabilizer
- Alternate source of energy with generator overload

Battery Low Start Vehicle Message

The body control module (BCM) monitors battery positive voltage to determine battery state of charge. If one or more of the BCM battery positive voltage terminals measure less than approximately 11.6V compared to the BCM ground circuits, this message will display and four chimes may sound. Start the vehicle immediately. If the vehicle is not started and the battery continues to discharge, the climate controls, heated seats, and audio systems will shut off and the vehicle may require a jump start. These systems will function again after the vehicle is started.

Battery Ratings

A battery has 2 ratings:

- Cold cranking amperage
- Amperage hours

When a battery is replaced use a battery with similar ratings. See battery specification label on the original battery.

Amperage Hours

The amperage hour rating tells you how much amperage is available when discharged evenly over a 20 hour period. The amperage hour rating is cumulative, so in order to know how many constant amperage the battery will output for 20 h, you have to divide the amperage hour rating by 20. Example: If a battery has an amperage hour rating of 74, dividing by 20 = 3.75. Such a battery can carry a 3.75 A load for 20 hours before dropping to 10.5 V. (10.5 V is the fully discharged level, at which point the battery needs to be recharged.) A battery with an amperage hour rating of 55 will carry a 2.75 A load for 20 hours before dropping to 10.5 V.

Cold Cranking Amperage

The cold cranking amperage is an indication of the ability of the battery to crank the engine at cold temperatures. The cold cranking amperage rating is the minimum amperage the battery must maintain for 30 seconds at −18°C (0°F) while maintaining at least 7.2 V. See battery label for the cold cranking amperage rating of this battery.

Charging System Description and Operation

Electrical Power Management Overview

The electrical power management system is designed to monitor and control the charging system and send diagnostic messages to alert the driver of possible problems with the battery and generator. This electrical power management system primarily utilizes existing on-board computer capability to maximize the effectiveness of the generator, to manage the load, improve battery state-of-charge and life, and minimize the system's impact on fuel economy. The electrical power management system performs 3 functions:

- Monitor the battery voltage and estimate the battery condition
- Take corrective actions by boosting idle speeds, and adjusting the regulated voltage
- Perform diagnostics and driver notification

The battery condition is estimated during ignition/vehicle off and during ignition/vehicle on. During ignition/vehicle off the state-of-charge of the battery is determined by measuring the open-circuit voltage. The state-of-charge is a function of the acid concentration and the internal resistance of the battery, and is estimated by reading the battery open circuit voltage when the battery has been at rest for several hours.

Any time the ignition/vehicle is on, the vehicle algorithm continuously estimates battery state-of-charge based on adjusted net amp hours, battery capacity, initial state-of-charge, and calculated temperature.

While the engine is running, the battery degree of discharge is primarily determined by the integrated battery current sensor, to obtain net amp hours.

In addition, the electrical power management function is designed to perform regulated voltage control to improve battery state-of-charge, battery life, and fuel economy. This is accomplished by using knowledge of the battery state-of-charge and temperature to set the charging voltage to an optimum battery voltage level for recharging without detriment to battery life.

Charging System Components

Generator

The engine drive belt drives the generator. When the rotor is spun, it induces an alternating current (AC) into the stator windings. The AC voltage is then sent through a series of diodes for rectification. The rectified voltage has been converted into a direct current (DC) for use by the vehicles electrical system to maintain electrical loads and the battery charge. The voltage regulator integral to the generator controls the output of the generator; It is not serviceable. The voltage regulator controls the amount of current provided to the rotor. If the generator has field control circuit fault, the generator defaults to an output voltage of 13.8 V.

The generator is serviced as a complete assembly. If there is a diagnosed fault in the generator, it must be replaced as an assembly.

Generator Pulley

The pulley drives the Generator via the engine drive belt. There are 2 types of pulleys:

1. Conventional solid Pulley which is bolted to the Generator stator shaft. This Pulley can be serviced separately.

2. One Way Clutch Pulley or Overrunning Alternator Decoupler Pulley allows the Generator to spin freely when the engine rapidly slows down on sudden deceleration. This part is not serviceable and the Generator needs to be replaced as an assembly.

Body Control Module (BCM)

The BCM communicates with the Engine Control Module (ECM) and the instrument cluster for electrical power management operation. The BCM determines the output of the generator and sends the information to the ECM for control of the generator turn on signal circuit. It monitors the generator field duty cycle signal circuit information sent from the ECM for control of the generator. It monitors the battery current sensor, the battery positive voltage circuit, and estimates battery temperature to determine battery state of charge. The BCM also performs idle boost.

Battery Current Sensor (if applicable)

The Battery Current Sensor is a serviceable component that is connected to the negative battery cable at the battery. The battery current sensor is a 3-wire hall effect current sensor. The battery current sensor monitors the battery current. It directly inputs to the BCM. It creates a 5 volt Pulse Width Modulation (PWM) signal of 128 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–95%. Between 0–5% and 95–100% are for diagnostic purposes.

Battery Sensor Module (if applicable)

The BCM monitors the Battery Sensor Module for battery state of current, state of health, and battery charge via serial data. If the battery is determined to be in poor state of health or having a low state of charge, the BCM will not allow the ECM to perform an auto-stop.

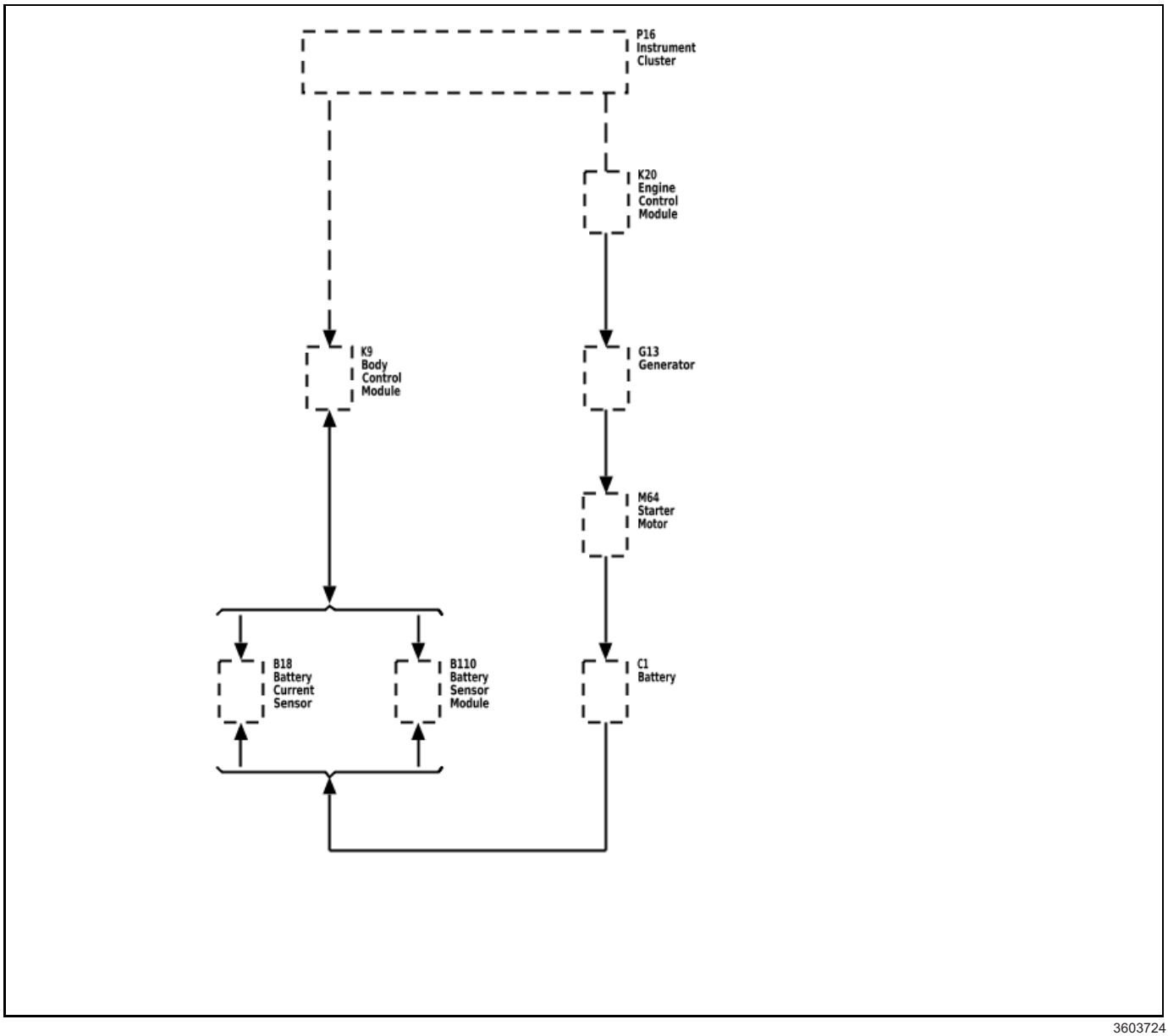
Engine Control Module (ECM)

When the engine is running, the generator turn-on signal is sent to the generator from the ECM, turning on the regulator. The generator's voltage regulator controls current to the rotor, thereby controlling the output voltage. The rotor current is proportional to the electrical pulse width supplied by the regulator. When the engine is started, the regulator senses generator rotation by detecting AC voltage at the stator through an internal wire. Once the engine is running, the regulator varies the field current by controlling the pulse width. This regulates the generator output voltage for proper battery charging and electrical system operation. The generator field duty terminal is connected internally to the voltage regulator and externally to the ECM. When the voltage regulator detects a charging system problem, it grounds this circuit to signal the ECM that a problem exists. The ECM monitors the generator field duty cycle signal circuit, and receives control decisions based on information from the BCM.

Instrument Cluster

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

The instrument cluster also provides customer notification if there is a concern with the charging system. There are two means of notification: a charge indicator on the instrument cluster and/or a service system message displayed on the Driver Information Center (DIC) if equipped.



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Charging System Operation

The purpose of the charging system is to maintain the battery charge and vehicle loads. There are 6 modes of operation and they include:

- Battery Sulfation Mode
- Charge Mode
- Fuel Economy Mode
- Head lamp Mode
- Start Up Mode
- Voltage Reduction Mode

The ECM Controls the Generator through the generator turn–on signal circuit, also known as the Generator L-terminal. The ECM monitors the generator performance though the Generator field duty cycle signal circuit, also known as the generator F-terminal.

The Generator turn–on signal (Generator L-terminal) is a Pulse Width Modulation (PWM) signal of 128 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–95%. 0–5% and 95–100% are for diagnostic purposes, with 0–5% monitoring for an open circuit and 95–100% monitoring for a short to ground at a fixed 13.8 V. The following table shows the commanded duty cycle and output voltage of the Generator:

Commanded Duty Cycle	Generator Output Voltage (+/- .25 V)
0–5%	13.8 V
10%	11 V
20%	11.56 V
30%	12.13 V
40%	12.69 V
50%	13.25 V
60%	13.81 V
70%	14.38 V
80%	14.94 V
90%	15.5 V
95–100%	13.8 V

The Generator provides a PWM feedback signal of the Generator voltage output through the Generator field duty cycle signal circuit to the ECM. This information is sent to the Body Control Module (BCM). The Generator field duty cycle signal (Generator F-terminal) is a PWM signal of 60–460 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–100%. 0–5% is reserved for diagnostic purposes.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage displayed in the DIC to fluctuate or change. This does not indicate a malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Charging System Modes

Battery Sulfation Mode

The BCM will enter this mode when the interpreted Generator output voltage is less than 13.2 V for 45 minutes. When this condition exists the BCM will enter Charge Mode for 2–3 minutes. The BCM will then determine which mode to enter depending on voltage requirements.

Charge Mode

The BCM will enter Charge Mode when ever one of the following conditions are met:

- Windshield wipers are ON for more than 3 s.
- Climate Control Voltage Boost Mode Request is true, as sensed by the HVAC control module via serial data. High speed cooling fan, rear defogger, and HVAC high speed blower operation can cause the BCM to enter the Charge Mode.
- The estimated battery temperature is less than 0° C (32°F).
- Battery State of Charge is less than 80%.
- Vehicle speed is greater than 145 km/h (90 mph)
- A current sensor malfunction exists.
- System voltage is determined to be below 12.56 V

When any one of these conditions is met, the system will set targeted generator output voltage to a charging voltage between 13.9–15.5 V, depending on the battery state of charge and estimated battery temperature.

Fuel Economy Mode

The BCM will enter Fuel Economy Mode when the estimated battery temperature is at least 0°C (32°F) but less than or equal to 80°C (176°F), the calculated battery current is less than 15 A and greater than −8 A, and the battery state-of-charge is greater than or equal to 80%. Its targeted generator output voltage is the open circuit voltage of the battery and can vary between 12.5–13.1 V. When fuel economy mode is active, the generator is not charging, only maintaining open circuit battery voltage to increase fuel economy. The BCM will exit this mode and enter Charge Mode when any of the conditions described above are present. The ECM ramps up the voltage when slowing down in an effort to charge the battery in a brake regenerative energy capture, and ramps it back down when accelerating, then the BCM is once again controlling the charging system. This can result with a volt meter displaying varying voltage while driving a fully charged battery. This is normal operation to maximize fuel economy by increasing and decreasing output of the charging system.

Headlamp Mode

The BCM will enter Headlamp Mode when ever the head lamps are ON (high or low beams). Voltage will be regulated between 13.9–14.5 V.

Start Up Mode

When the engine is started the BCM sets a targeted generator output voltage of 14.5 V for 30 s.

Tow/Haul Mode (if applicable)

Pressing the Tow/Haul Mode button located on the center stack, the vehicle system voltage is raised and the remote (non-vehicle) battery will be charged. Having the headlamps on will raise the system voltage and if the Tow/Haul button is applied it will not serve any purpose. The voltage is regulated between 13.9-14.5 V.

Instrument Cluster Operation

Charge Indicator Operation

The instrument cluster illuminates the charge indicator and displays a warning message in the driver information center if equipped, when the one or more of the following occurs:

- The ECM detects that the generator output is less than 11 V or greater than 16 V. The instrument cluster receives a serial data message from the ECM requesting illumination.
- The instrument cluster determines that the system voltage is less than 11 V or greater than 16 V for more than 30 s. The instrument cluster receives a serial data message from the BCM indicating there is a system voltage range concern.
- The instrument cluster performs the displays test at the start of each ignition cycle. The indicator illuminates for approximately 3 s.

Driver Information Center Message: BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM

The BCM and the ECM will send a serial data message to the driver information center for the BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM message to be displayed. It is displayed when a charging system DTC is a current DTC. The message is turned off when the conditions for clearing the DTC have been met.

Voltmeter Gauge and/or System Voltage Display (if equipped)

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage display in the driver information center to fluctuate or change. This does not indicate a

malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Electrical Power Management Description and Operation (Gasoline)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Electrical Power Management Description and Operation (Diesel)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition. Idle boost consists of three steps: idle boost 1, idle boost 2, and idle boost 3 (approximately 725, 850, and 850 rpm respectively). Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Starting System Description and Operation

Starter Motor Operation (Without KL9)

The starter motors are non-repairable. They have pole pieces that are arranged around the armature. Both solenoid windings are energized. The pull-in winding circuit is completed to the ground through the starter motor. The windings work together magnetically to pull and hold in the plunger. The plunger moves the shift lever. This action causes the starter drive assembly to rotate on the armature shaft spline as it engages with the flywheel ring gear on the engine. Moving at the same time, the plunger also closes the solenoid switch contacts in the starter solenoid. Full battery voltage is applied directly to the starter motor and it cranks the engine.

As soon as the solenoid switch contacts close, current stops flowing thorough the pull-in winding because battery voltage is applied to both ends of the windings. The hold-in winding remains energized. Its magnetic field is strong enough to hold the plunger, shift lever, starter drive assembly, and solenoid switch contacts in place to continue cranking the engine. When the engine starts, pinion overrun protects the armature from excessive speed until the switch is opened.

When the crank signal is removed, the starter relay opens and battery voltage is removed from the starter solenoid S terminal. Current flows from the motor contacts through both windings to the ground at the end of the hold-in winding. However, the direction of the current flow through the pull-in winding is now opposite the direction of the current flow when the winding was first energized.

The magnetic fields of the pull-in and hold-in windings now oppose one another. This action of the windings, along with the help of the return spring, causes the starter drive assembly to disengage and the solenoid switch contacts to open simultaneously. As soon as the contacts open, the starter circuit is turned off.

Enhanced Starter Motor Operation (KL9)

The Engine Stop/Start system in GM vehicles automatically turns off the engine when the vehicle comes to a stop under certain driving conditions, and can quickly restart the engine in about 0.3 seconds when commanded to do so.

In order to smoothly restart the engine as quickly as possible while managing the greater number of engine starts, the Stop/Start system uses an enhanced starter motor that operates differently from a conventional starter motor. It has a high performance electric motor and a stronger pinion engagement mechanism than a conventional starter. It also has independent control of the pinion and motor.

The enhanced starter motor continues using the typical pinion engagement mechanism with a starter solenoid that drives the pinion gear to engage or disengage the flywheel of the engine. When engaged, the starter motor can rotate the engine flywheel and, in turn, the crankshaft.

On the enhanced starter of a Stop/Start system the operation is done in two separate functions inside the solenoid, Starter Motor and Pinion Actuator. Each function controlled individually by the ECM. There are two separate relays to control the two separate parts of the enhanced solenoid:

- KR27 Starter Motor Relay
- KR27C Starter Pinion Actuator Relay

The two individually-controlled relays allow for smooth engagement of the pinion gear into the flywheel with minimum noise and wear.

When the vehicle is coming to a stop, just before the engine stops rotating (at approximately 50 RPM) during stop/start operation, the ECM energizes the Starter Pinion Solenoid Actuator Relay to easily push the pinion gear into the flywheel gear without gear clash. (Fig. 8) When the engine stops rotating during Stop/Start operation (Auto Stop mode), the starter pinion gear is fully engaged, ready for the starter motor to become energized to quickly start the engine again.

A secondary need for the starter pinion to be driven into the flywheel gear before the engine stops rotating is to address quickly changing demands on the engine. For example, when a driver is slowing nearly to a stop — and the Stop/Start system is preparing for Auto Stop mode — but suddenly decides to release the brake and accelerate

In this situation, the engine has already stopped rotating, or nearly so. A conventional starter cannot restart the engine until the engine has completely stopped. However, with the enhanced starter, the starter pinion gear is fully engaged and ready to begin rotating the engine even before it fully stops turning. Otherwise, the engine would actually have to stop rotating before the pinion can engage smoothly to begin a restart.

To prevent a lag in engine operation, the ECM uses predictive speed matching of the flywheel gear speed and the pinion gear speed to engage the pinion gear into the flywheel gear without gear clash before the engine fully stops. By predicting how long it takes the starter motor to spin up using an algorithm, the pinion gear speed can be matched to the flywheel gear speed. The result is an almost instant restart that is possible at extremely low engine speeds.

Circuit Description

Keyless Start

When the Ignition mode switch is placed in the crank position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the crank position. The BCM then sends a serial data message to the engine control module (ECM) that crank has been requested. The ECM then verifies that the brake pedal is applied and for manual transmission the clutch is fully depressed or for automatic transmission is in Park/Neutral. If it is, the ECM then supplies 12 V to the control circuit of the starter relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Key Start

When the ignition switch is placed in the Start position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the Start position. The BCM then sends a message to the engine control module (ECM) notifying it that CRANK has been requested. The ECM verifies that the transmission is in Park or Neutral. If it is, the ECM then supplies 12 V to the control circuit of the crank relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Section 5

HVAC

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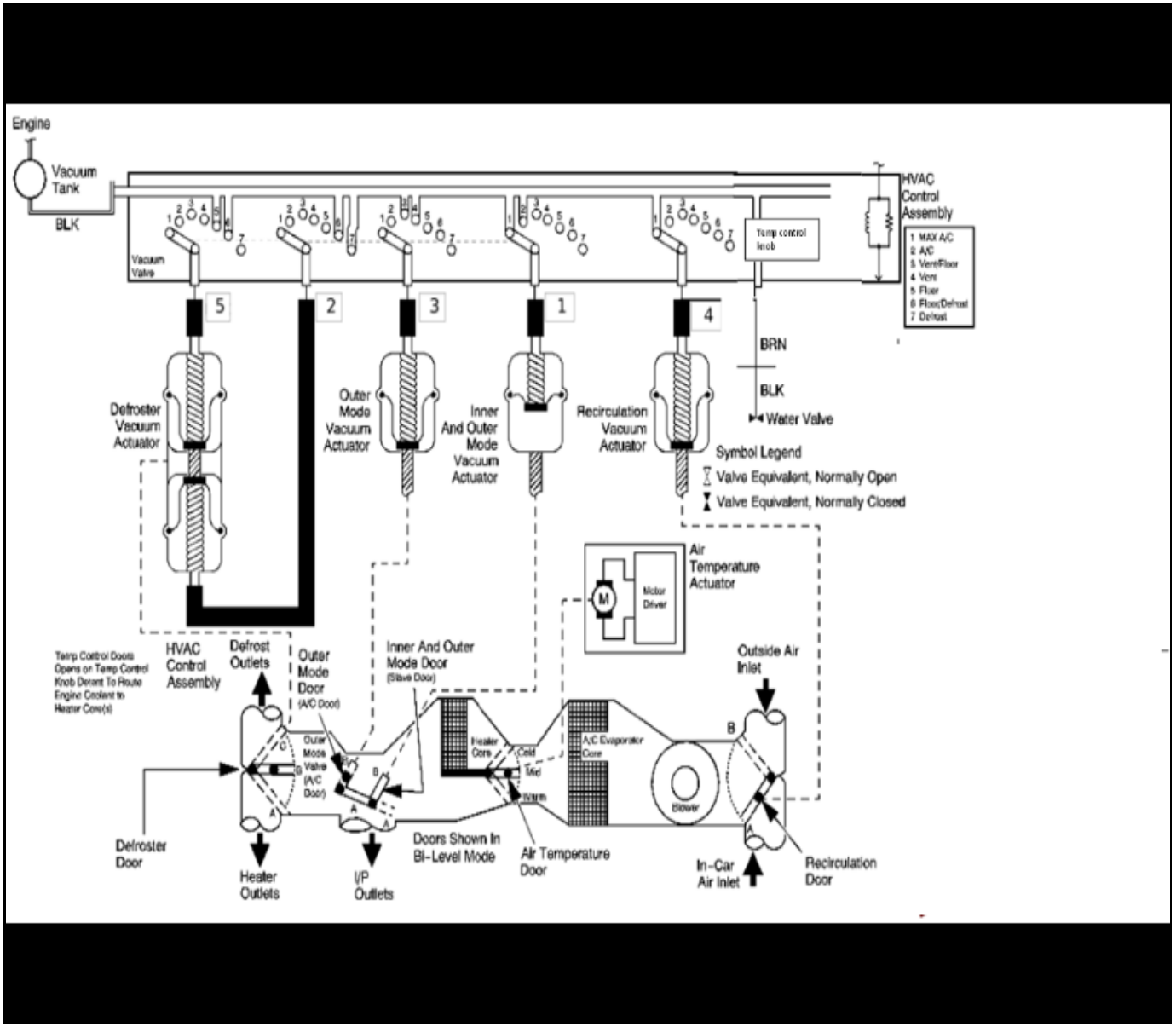
HVAC - Manual

Schematic and Routing Diagrams
HVAC Vacuum Schematics



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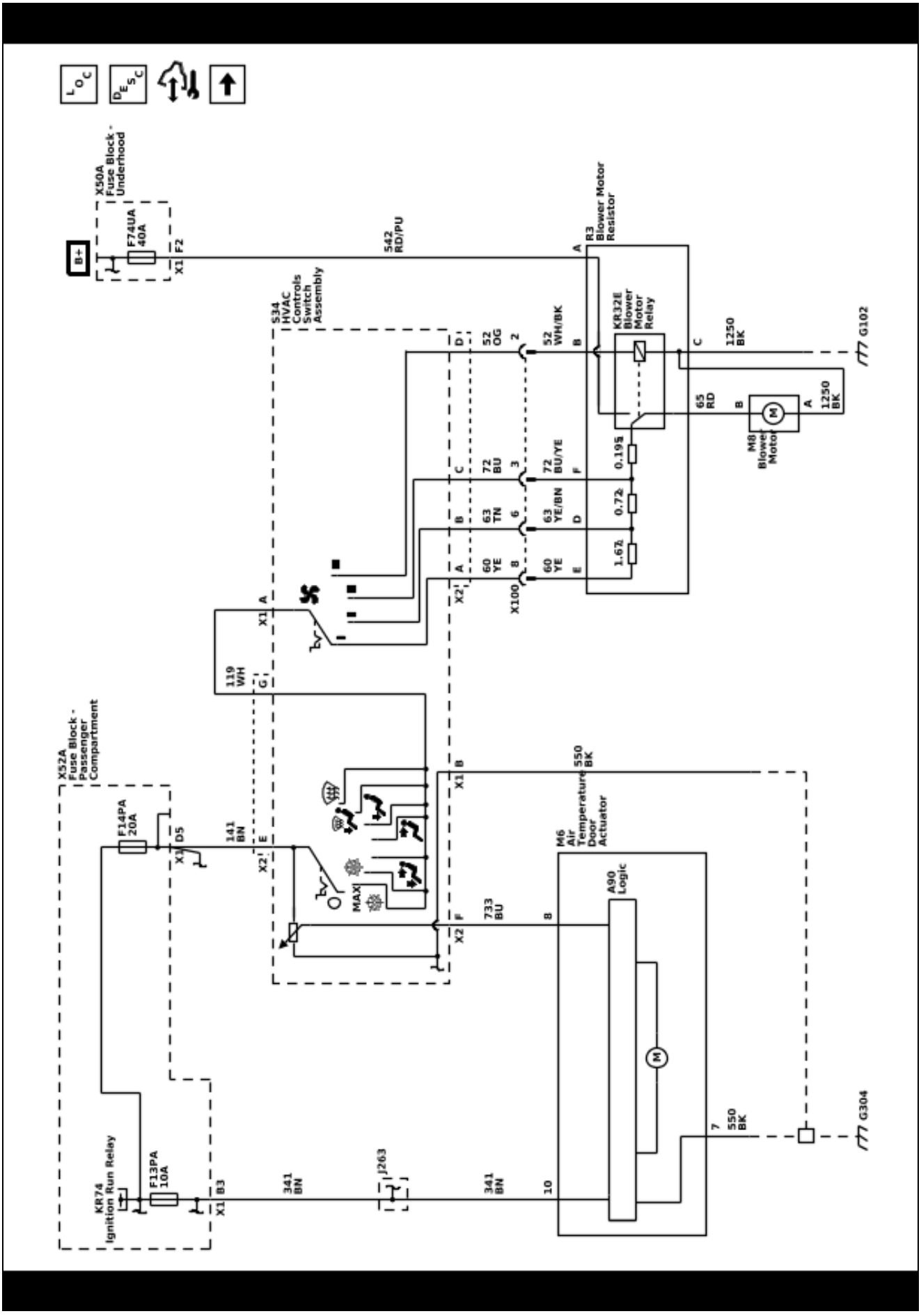
Heater Only

Vacuum Valve Switch Operating Chart							
Vacuum Hose Connector	**Port Number**	**Off**	**Vent**	**Bi- Level**	**Heat**	**Blend**	**Defrost**
A/C Open	1	Vent	Vacuum	Vent	Vent	Vent	Vent
Defrost	2	Vent	Vent	Vent	Vent	Vent	Vacuum
Bi- Level	3	Vent	Vacuum	Vacuum	Vent	Vent	Vent
Recirculation	4	Vent	Vent	Vent	Vent	Vent	Vent
Heater	5	Vacuum	Vent	Vacuum	Vacuum	Vent	Vent
Vacuum Source	6	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum

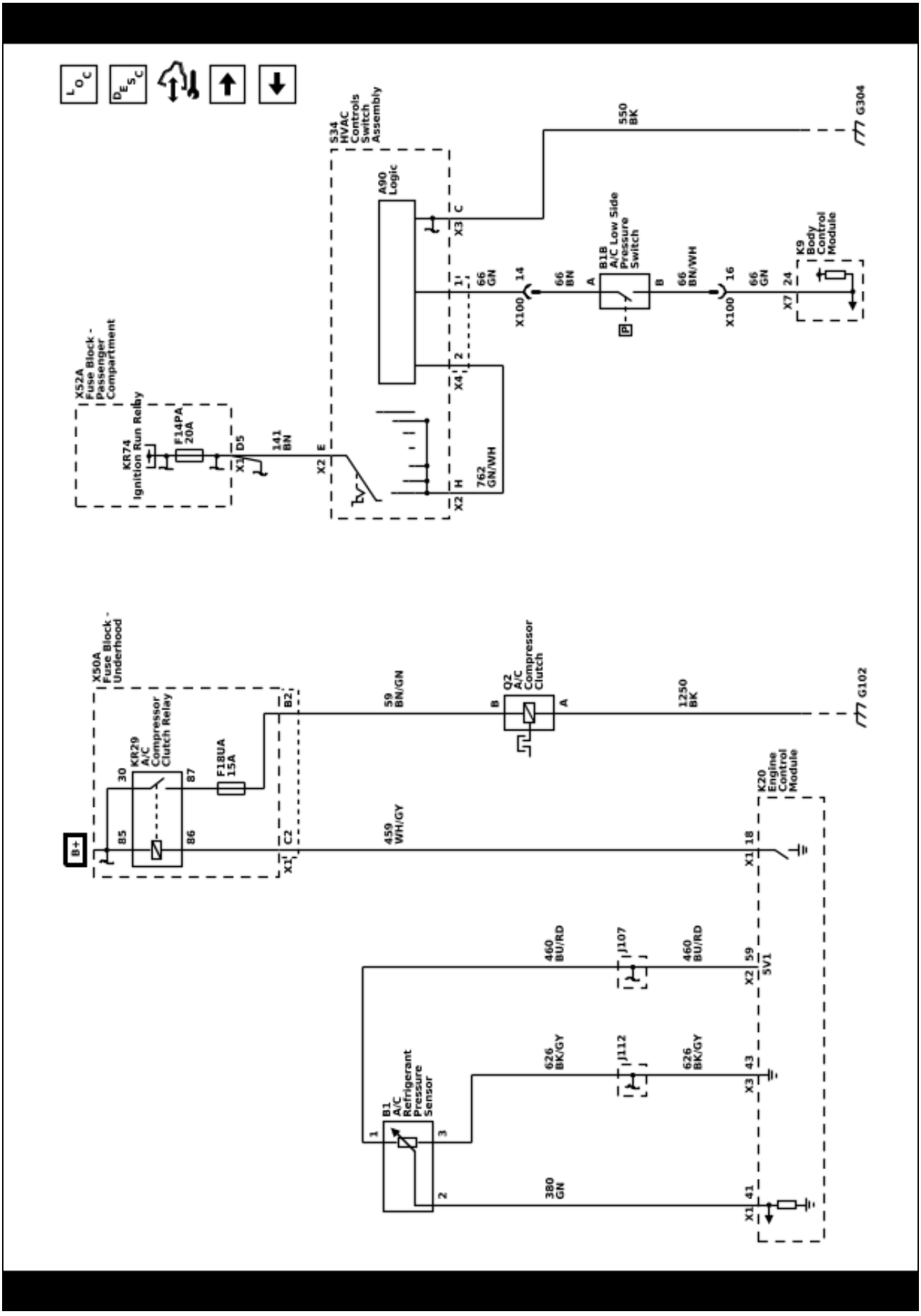
Heater and Air Conditioning

Vacuum Valve Switch Operating Chart									
Vacuum Hose Conn-ector	**Port Number**	**Off**	**MAX**	**Normal**	**Bi- Level**	**Vent**	**Heat**	**Blend**	**Defrost**
A/C Open	1	Vent	Vacuum	Vacuum	Vent	Vacuum	Vent	Vent	Vent
Defrost	2	Vent	Vent	Vent	Vent	Vent	Vent	Vent	Vacuum
Bi- Level	3	Vent	Vacuum	Vacuum	Vacuum	Vacuum	Vent	Vent	Vent
Recirc-ulation	4	Vent	Vacuum	Vent	Vent	Vent	Vent	Vent	Vent
Heater	5	Vacuum	Vent	Vent	Vacuum	Vent	Vacuum	Vent	Vent
Vacuum Source	6	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum

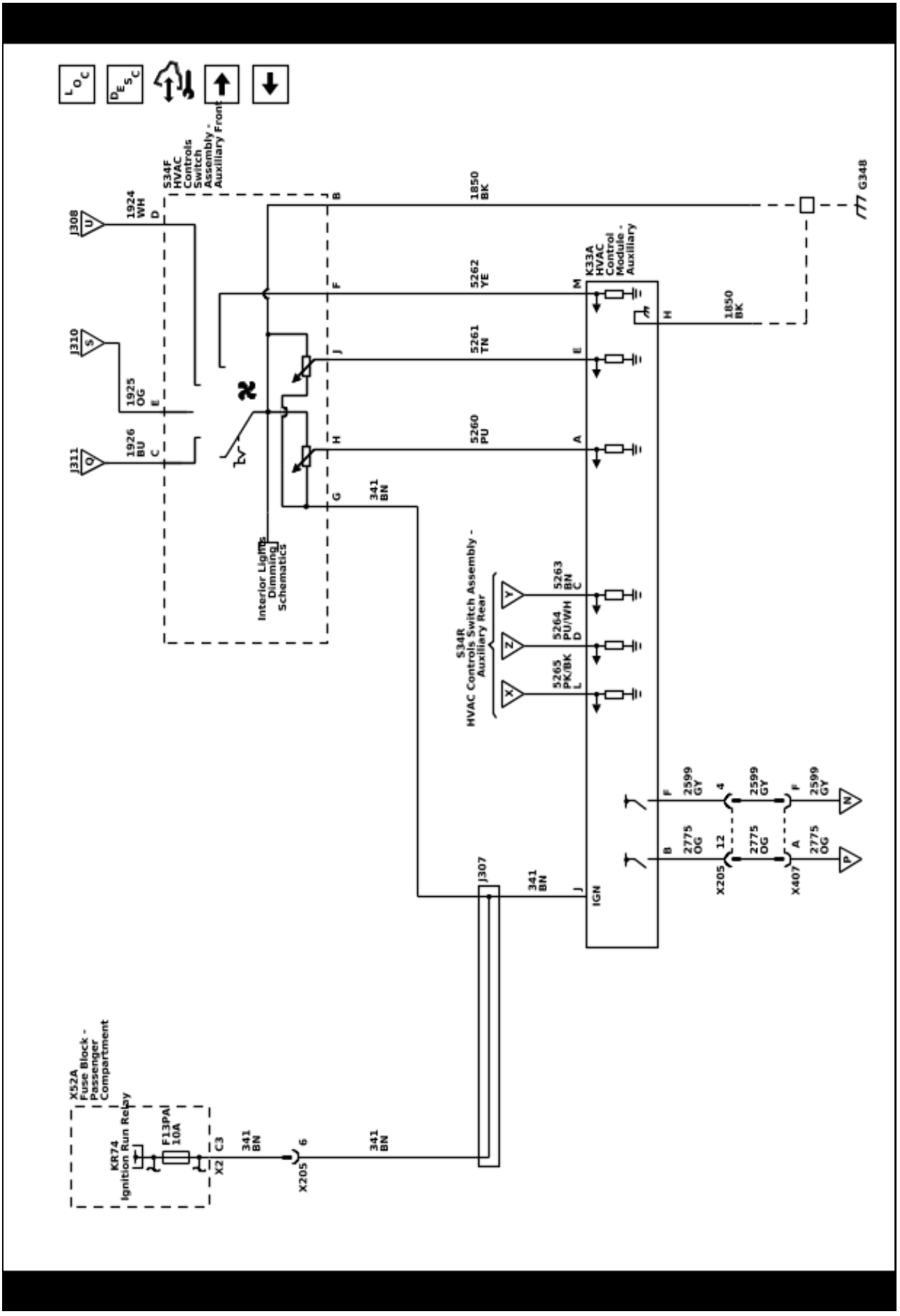
HVAC Schematics (Front Air Delivery Controls and Front Blower Motor)



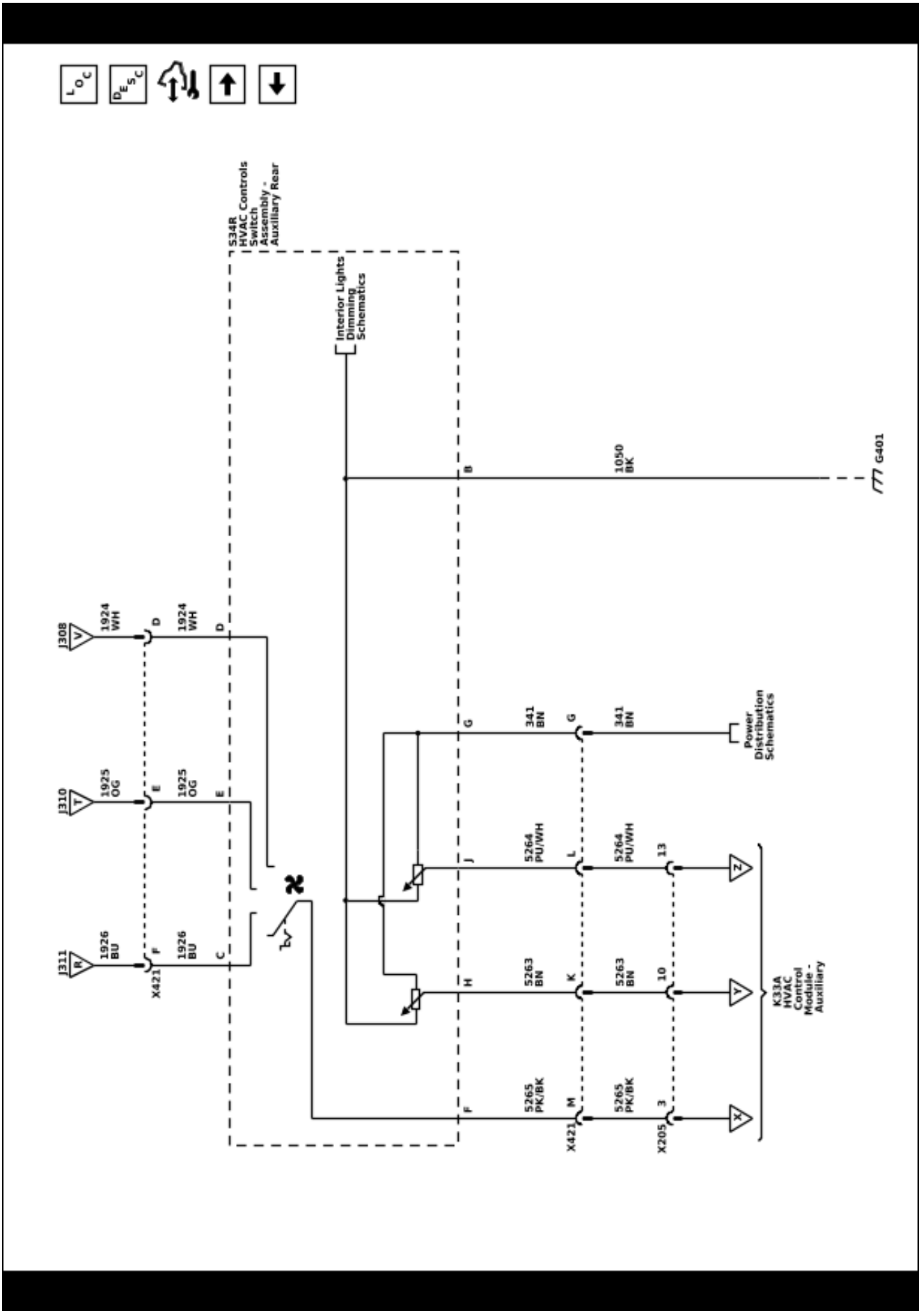
HVAC Schematics (Compressor Controls (C60))



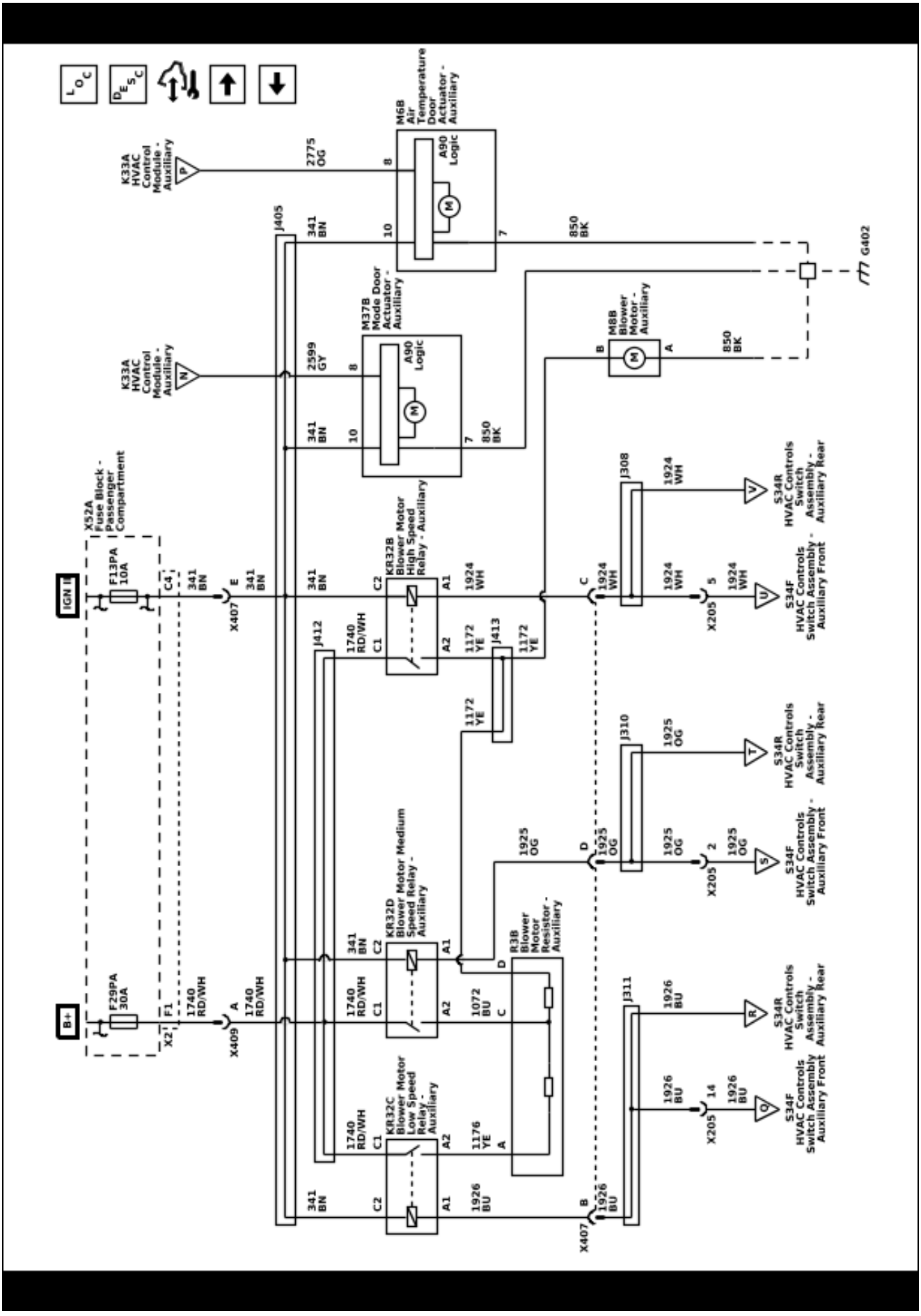
HVAC Schematics (Rear HVAC with Rear Air Conditioning, with Rear HVAC Controls - Air Delivery Controls (C69))



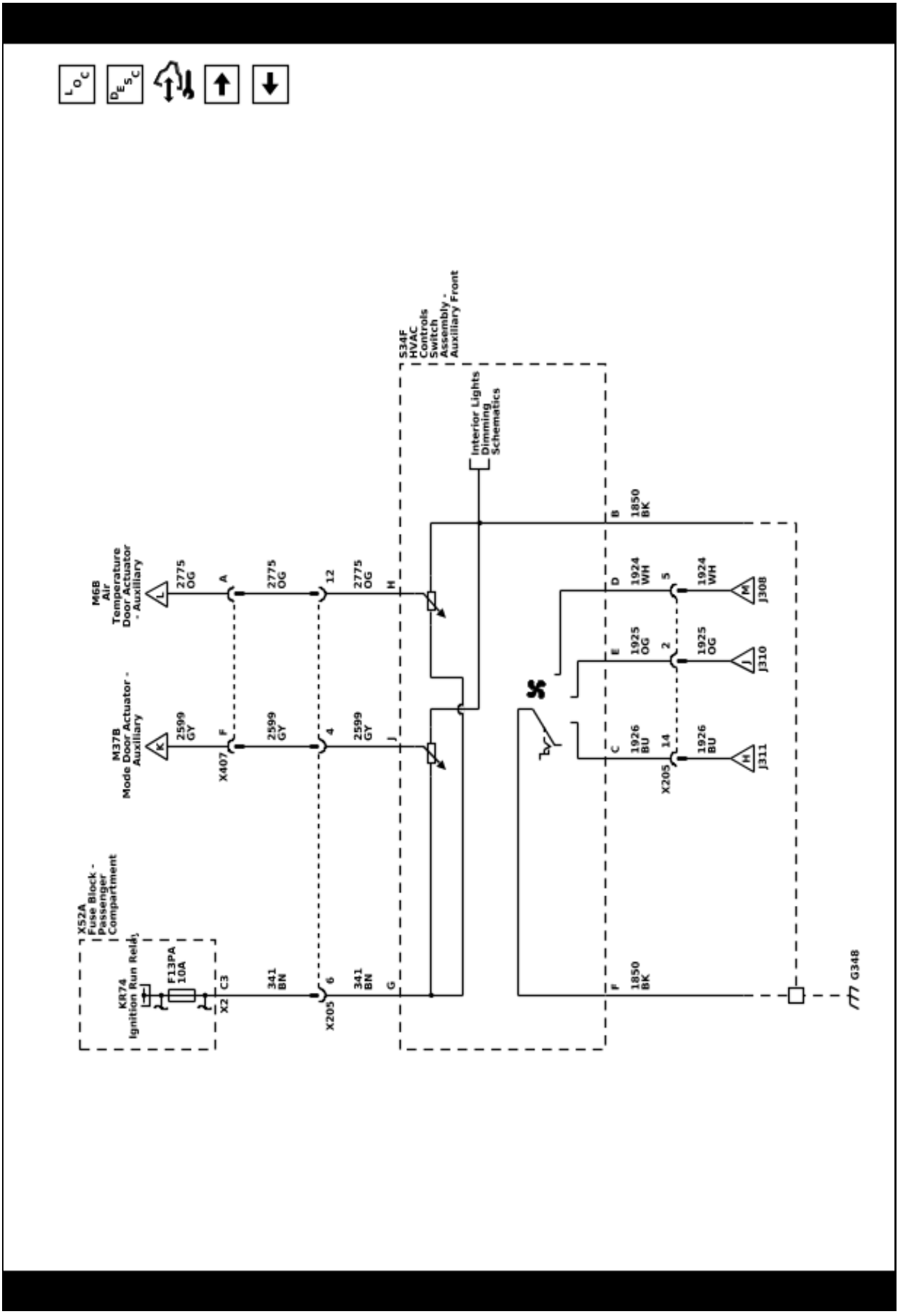
HVAC Schematics (Rear HVAC with Rear Air Conditioning, with Rear HVAC Controls - Rear Controls (C69))



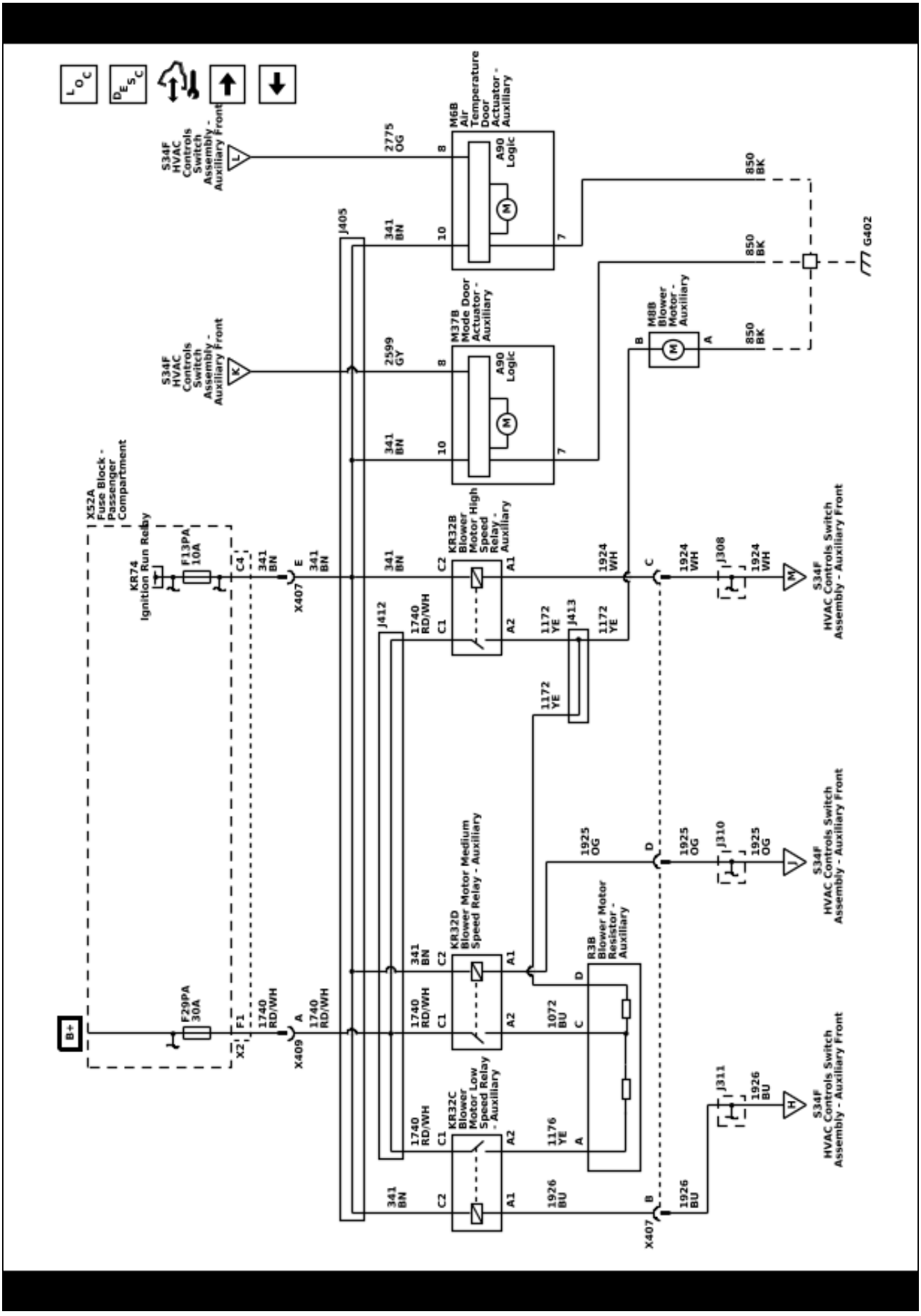
HVAC Schematics (Rear HVAC with Rear Air Conditioning, with Rear HVAC Controls - Front Controls (C69))



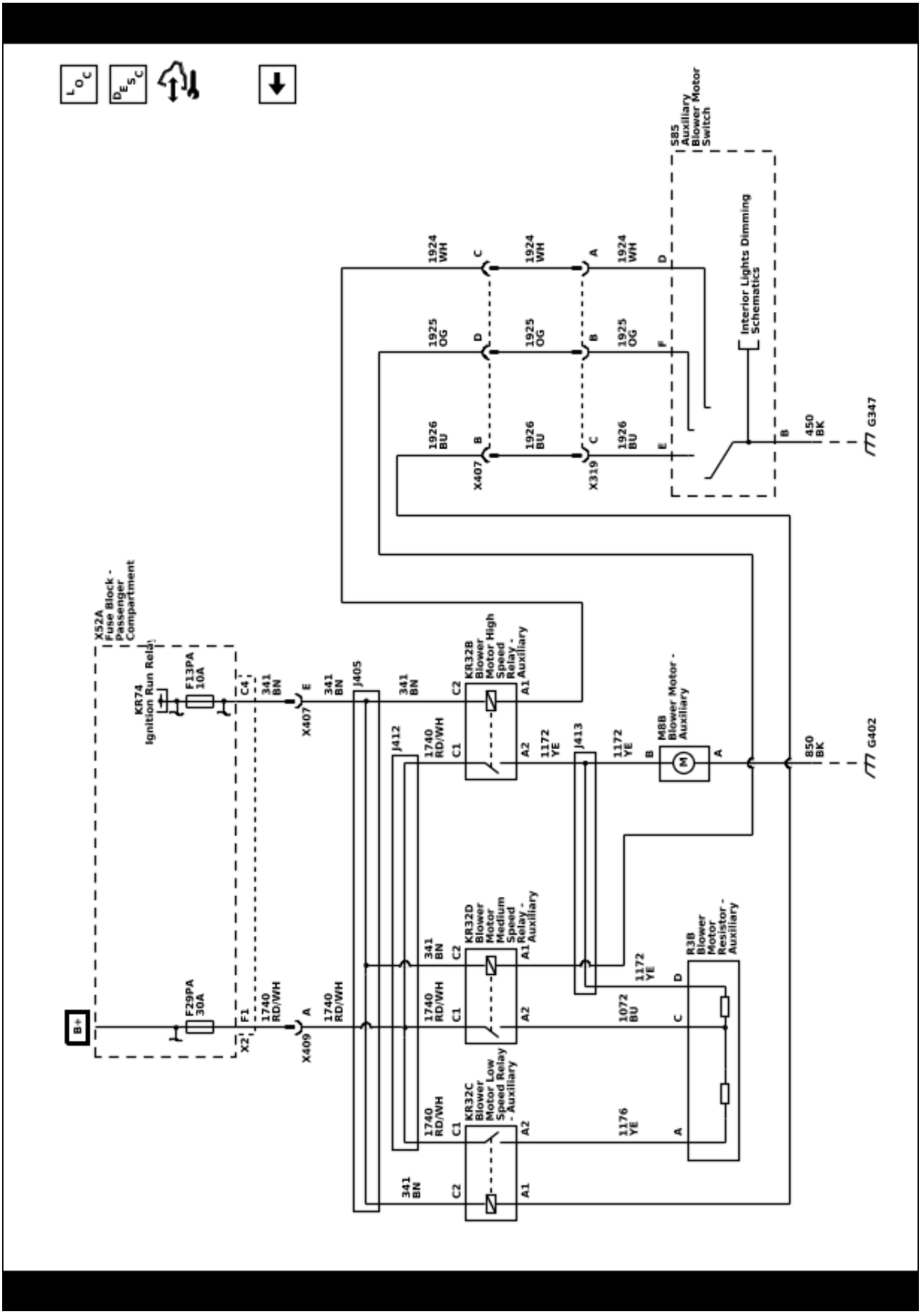
HVAC Schematics (Rear HVAC with Rear Air Conditioning, without Rear HVAC Controls - Air Delivery Controls (C69))



HVAC Schematics (Rear HVAC with Rear Air Conditioning, without Rear HVAC Controls - Front Controls (C69))



HVAC Schematics (Rear HVAC without Rear Air Conditioning (C36 - C69))



Description and Operation

Air Delivery Description and Operation

The air delivery description and operation is divided into the following:

- HVAC Control Assembly
- Air Speed
- Auxiliary Air Speed
- Air Distribution
- Auxiliary Air Delivery

HVAC Control Assembly

The HVAC control assembly is a non-class 2 device that interfaces between the operator and the HVAC system to maintain air temperature and distribution settings. The ignition 3 voltage circuit provides power to the control assembly. Two integrated potentiometers control air temperature door position and blower motor speed. The integrated vacuum system controls the position of the mode doors.

Air Speed

The HVAC control assembly applies voltage to the blower motor control circuit that corresponds to the selected blower speed. The resistors and the blower motor are in a series circuit. The following list represents the number of resistors in series with the blower motor per particular speed request:

- Low speed-3 resistors
- Medium 1 speed-2 resistors
- Medium 2 speed-1 resistor

When the operator requests High speed, the HVAC control assembly applies voltage to the blower motor relay through the high blower motor control circuit. The voltage energizes the blower motor relay, connecting the blower motor to battery positive voltage.

Auxiliary Air Speed

The auxiliary HVAC control assembly applies voltage to the auxiliary blower motor control circuit that corresponds to the selected blower speed. The resistors and the blower motor are in a series circuit. The following list represents the number of resistors in series with the blower motor per particular speed request:

- Low speed-2 resistors
- Medium speed-1 resistor

When the operator requests High speed, the HVAC control assembly applies voltage to the blower motor relay through the auxiliary high blower motor control circuit. The voltage energizes the blower motor relay, connecting the blower motor to battery positive voltage.

Air Distribution

The HVAC control assembly uses vacuum to control the mode door position. Vacuum is supplied to the control assembly and a vacuum tank by either an engine vacuum source, or a vacuum pump when the vehicle is equipped with a diesel engine..

Vacuum Pump (Diesel Engines)

The mechanical vacuum pump operates when the engine is running. The vacuum pump supplies vacuum to the HVAC control assembly and vacuum tank.

Mode Switch

The mode switch is a rotary vacuum valve that directly applies vacuum to the appropriate vacuum actuator. Use the mode switch to change the air delivery mode in the vehicle.

MAX A/C (If Equipped)

The mode switch applies vacuum to ports 1, 3, and 4. The mode actuators have vacuum applied to them, directing airflow to the vents. The recirculation actuator has vacuum applied to it positioning the recirculation door to recirculate air within the vehicle. A/C compressor operation is requested.

A/C (If Equipped)

The mode switch applies vacuum to ports 1 and 3. The mode actuators have vacuum applied to them, directing airflow to the vents. A/C compressor operation is requested.

Bi-Level Mode

The mode switch applies vacuum to ports 3 and 5. The inner mode and defrost actuators have vacuum applied to them, directing airflow to the vents and floor.

Vent Mode

The mode switch applies vacuum to ports 1 and 3. The mode actuators have vacuum applied to them, directing airflow to the vents.

Floor Mode

The mode switch applies vacuum to port 5. The defrost actuator has vacuum applied to it, directing airflow to the floor.

Mix-Blend Mode

The mode switch vents all ports. With no vacuum at any port, the following occurs:

- Vacuum is bled off the defrost actuator, keeping it in a neutral position. The defroster door is held stationary in the half-open directing airflow through the defroster and floor outlets.
- A/C compressor operation is requested.

Defrost Mode

The mode switch applies vacuum to port 7 and the following occurs:

- The defrost actuator has vacuum applied to it directing airflow through the defroster outlet.
- A/C compressor operation is requested.

Auxiliary Air Distribution (C69)

Auxiliary HVAC Control Processor

The auxiliary HVAC control processor controls all outputs for the auxiliary HVAC system. The auxiliary HVAC control processor receives inputs from the front and rear auxiliary HVAC control assemblies. The auxiliary HVAC control processor does not utilize Class 2 communications. If the auxiliary HVAC control processor receives a 12V varied voltage input for an

auxiliary air temperature actuator change request. Then the auxiliary HVAC control processor creates a 12V varied output for control of the auxiliary air temperature actuator.

Auxiliary Mode Actuator

The auxiliary mode actuator is a 3 wire bi-directional electric motor. Ignition 3 voltage, ground and control circuits enable the actuator to operate. The control circuit uses a 0-12V linear-ramped signal to command the actuator movement. The 0 and 12V control values represent the opposite limits of the actuator range of motion. The values in between 0 and 12V correspond to the positions between the limits. When the HVAC control assembly sets a commanded, or targeted, value, the control signal is set to a value between 0-12V. The actuator shaft rotates until the commanded position is reached. The module will maintain the control value until a new commanded value is needed.

The rear auxiliary air delivery and the temperature controls work independently of the ventilation controls used for the front of the vehicle. The rear auxiliary mode door and the rear auxiliary temperature door are exclusively controlled from either of the 2 auxiliary HVAC controls. The front auxiliary HVAC controls has a permissive position called REAR. The REAR position enables control from the rear auxiliary HVAC controls.

Air Temperature Description and Operation

The air temperature controls are divided into five areas.

- HVAC Control Components
- Heating and A/C Operation
- Auxiliary Heating and A/C Operation
- Engine Coolant
- A/C Cycle

HVAC CONTROL COMPONENTS

HVAC Control Assembly

The HVAC control assembly is a non-class 2 device that interfaces between the operator and the HVAC system to maintain air temperature and distribution settings. The ignition 3 voltage circuits provide power to the control assembly. Two integrated potentiometers control air temperature door position and blower motor speed. The integrated vacuum system controls the mode door position.

Auxiliary HVAC Control Processor

The auxiliary HVAC control processor controls all outputs for the auxiliary HVAC system. The auxiliary HVAC control processor receives inputs from the front and rear auxiliary HVAC control assemblies. The auxiliary HVAC control processor does not utilize Class 2 communications.

If the auxiliary HVAC control processor receives a 12-volt varied voltage input for an auxiliary air temperature actuator change request. Then the auxiliary HVAC control processor creates a 12-volt varied output for control of the auxiliary air temperature actuator.

Air Temperature Actuator

The air temperature actuator and auxiliary air temperature actuator are a 3-wire bi-directional electric motor. Ignition 3 voltage, ground and control circuits enable the actuator to operate. The control circuit uses a 0–12-volt linear-ramped signal to command the actuator movement. The 0 and 12-volt control values represent the opposite limits of the actuator range of motion. The values in between 0 and 12 volts correspond to the positions between the limits.

When the HVAC control assembly sets a commanded, or targeted, value, the control signal is set to a value between 0–12 volts. The actuator shaft rotates until the commanded position is reached. The module will maintain the control value until a new commanded value is needed.

A/C Pressure Switches

The A/C system is protected by two A/C pressure switches.

- A/C low pressure switch
- A/C high pressure switch

The A/C high pressure switch interrupts the A/C request signal when the A/C line pressure is more than a predetermined value. The A/C low pressure switch interrupts the A/C low pressure switch signal when the A/C line pressure is less than or more than a predetermined value. When the powertrain control module (PCM) stops receiving the required signals, the A/C compressor clutch relay control circuit is no longer grounded, disengaging the A/C compressor clutch. The A/C compressor clutch is disengaged under the following conditions:

- A/C low pressure switch is less than 152 kPa (22 psi).
- A/C low pressure switch is more than 310 kPa (45 psi).
- A/C high pressure switch is more than 2896 kPa (420 psi).

Bypass Valves

The bypass valves included in the air temperature system are:

- Coolant Bypass Valve
- Hot Water Bypass Valve

The bypass valve is a normally open valve, which closes when vacuum is applied to the valve. When the MAX A/C mode is selected, vacuum from the HVAC control assembly is applied to the bypass valve. The vacuum must be strong enough to overcome the tension of the valve's internal return spring in order to close the bypass valve. The return spring forces the valve to return to the open position, when any of the other HVAC modes are selected. In the closed position, the flow of coolant to the heater core is bypassed, allowing maximum cooling to the passenger compartment.

Heating and A/C Operation

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. The vehicle operator can determine the passenger compartment

temperature by adjusting the air temperature switch. Regardless of the temperature setting, the following can effect the rate that the HVAC system can achieve the desired temperature:

- Recirculation
- Difference between inside and desired temperature
- Difference between ambient and desired temperature
- Blower motor speed setting
- Mode setting
- Auxiliary HVAC settings

The A/C system can be engaged by placing the mode switch in one of the following positions:

- Max A/C
- A/C
- Bi-Level
- Blend
- Defrost

The A/C system can operate regardless of the temperature setting. Regardless of the selected A/C mode setting, a request is sent to the PCM to turn on the A/C compressor clutch.

The following conditions must be met in order for the PCM to turn on the compressor clutch:

- Ambient air temperature is greater than 3°C (38°F)
- Engine coolant temperature (ECT) is less than 123°C (253°F)
- Engine speed is less than 5000 RPM
- The A/C compressor cycling switch pressure is between 124-388 kPa (18-49 psi)
- The A/C high pressure cutout switch is less than 2896 kPa (420 psi)

Once engaged, the compressor clutch will be disengaged for the following conditions:

- Throttle position is 100 percent
- The A/C compressor cycling switch pressure is less than 124 kPa (18 psi) or more than 338 kPa (49 psi)
- The A/C high pressure cutout switch is more than 2896 kPa (420 psi)
- Engine coolant temperature (ECT) is more than 123°C (253°F)
- Engine speed is more than 5000 RPM
- Transmission shift
- PCM detects excessive torque load
- PCM detects insufficient idle quality
- PCM detects a hard launch condition

When the compressor clutch disengages, the compressor clutch diode protects the electrical system from a voltage spike.

Heater Mode – Auxiliary Heater without A/C

The auxiliary blower motor recycles air from the vehicle's interior. The vehicle operator can determine the intensity of the auxiliary heater by placing the auxiliary blower motor in one of the following positions:

- Low
- Med
- High

Since there is no temperature switch, the temperature is controlled by the speed of the auxiliary blower motor. The auxiliary blower motor will only operate when the ignition is in the RUN position, and the auxiliary blower motor switch is in any position other than OFF.

Heater Mode – Front Auxiliary HVAC Control Assembly Only

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the instrument panel (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

Heater Mode – Front Auxiliary HVAC Control Assembly with Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a varied resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature

Heater Mode – Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the rear auxiliary HVAC control assembly allows the rear seat passengers to adjust the temperature in the rear of the vehicle. Power is provided to the rear auxiliary HVAC control assembly, auxiliary HVAC control processor and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

To activate the rear auxiliary HVAC control assembly, the front auxiliary HVAC control assembly must be placed in the REAR CNTL position. Ignition 3 voltage is

sent to the auxiliary HVAC control processor. When the switch is placed in the REAR CNTL position, the voltage is grounded through the auxiliary blower motor switch control, front auxiliary HVAC control assembly and the ground circuit to allow the rear auxiliary HVAC control assembly to operate the auxiliary temperature actuator. Voltage delivered to the rear auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Front Auxiliary HVAC Control Assembly Only

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Front Auxiliary HVAC Control Assembly with Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the rear auxiliary HVAC control assembly allows the rear seat passengers to adjust the temperature in the rear of the vehicle. Power is provided to the rear auxiliary HVAC control assembly, auxiliary HVAC control processor and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

To activate the rear auxiliary HVAC control assembly, the front auxiliary HVAC control assembly must be placed in the REAR CNTL position. Ignition 3 voltage is sent to the auxiliary HVAC control processor. When the switch is placed in the REAR CNTL position, the voltage is grounded through the auxiliary blower motor switch control, front auxiliary HVAC control assembly and the ground circuit to allow the rear auxiliary HVAC control assembly to operate the auxiliary temperature actuator. Voltage delivered to the rear auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a varied resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

Engine Coolant

Engine coolant is the key element of the heating system. The thermostat controls engine operating coolant temperature. The thermostat also creates a restriction for the cooling system that promotes a positive coolant flow and helps prevent cavitation. Coolant enters the heater core through the inlet heater hose, in a pressurized state.

The heater core is located inside the HVAC module. The heat of the coolant flowing through the heater core is absorbed by the ambient air drawn through the HVAC module. Heated air is distributed to the passenger compartment, through the HVAC module, for passenger comfort.

The amount of heat delivered to the passenger compartment is controlled by opening or closing the HVAC module air temperature door. The coolant exits the heater core through the return heater hose and recirculated back through the engine cooling system.

A/C Cycle

Refrigerant is the key element in an air conditioning system. R-134a is presently the only EPA approved refrigerant for automotive use. R-134a is an very low temperature gas that can transfer the undesirable heat and moisture from the passenger compartment to the outside air.

The A/C compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure on the vapor refrigerant. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor, through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system. The A/C system is mechanically protected with the use of a high pressure relief valve. If the high pressure switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line, to the orifice tube.

The orifice tube is located in the liquid line between the condenser and the evaporator. The orifice tube is the dividing point for the high and the low pressure sides of the A/C system. As the refrigerant passes through the orifice tube, the pressure on the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to vaporize at the orifice tube. The orifice tube also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the orifice tube flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the HVAC module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the compressor, in a vapor state, and completing the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the HVAC module for passenger comfort. The heat and moisture removed from the passenger compartment will also change form, or condense, and is discharged from the HVAC module as water.

A/C Cycle with Auxiliary

The auxiliary A/C system operates from the vehicles primary A/C system. The front or primary A/C system must be ON to allow the rear A/C system to function.

Refrigerant is the key element in an air conditioning system. R-134a is presently the only EPA approved refrigerant for automotive use. R-134a is an very low temperature gas that can transfer the undesirable heat and moisture from the passenger compartment to the outside air.

The A/C system used on this vehicle is a non cycling system. Non cycling A/C systems use a high pressure switch to protect the A/C system from excessive pressure. The high pressure switch will OPEN the electrical signal, to the compressor clutch, in the event that the refrigerant pressure becomes excessive. After the high and low side of the A/C system pressure equalize, the high pressure switch will CLOSE. Closing the high pressure switch will complete the electrical circuit to the compressor clutch. The A/C system is also mechanically protected with the use of a high pressure relief valve. If the high pressure switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

The A/C compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure on the vapor refrigerant. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor, through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line. The liquid line flow is split and the liquid refrigerant flows to both the front or primary A/C system, and to the liquid line for the rear A/C system.

The liquid refrigerant, flowing to the rear A/C system, flows into the rear TXV. The rear TXV is located at the rear evaporator inlet. The TXV is the dividing point for the high and the low pressure sides of the rear A/C system. As the refrigerant passes through the TXV, the pressure on the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to boil at the expansion device. The TXV also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the TXV flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the rear A/C module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the primary A/C systems suction line. Refrigerant in the primary A/C system suction line flows back to the compressor, in a vapor state, and completes the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the rear A/C module for passenger comfort. The heat and moisture removed from the rear passenger compartment will also change form, or condense, and is discharged from the rear A/C module as water.

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Section 6

Power and Signal Distribution

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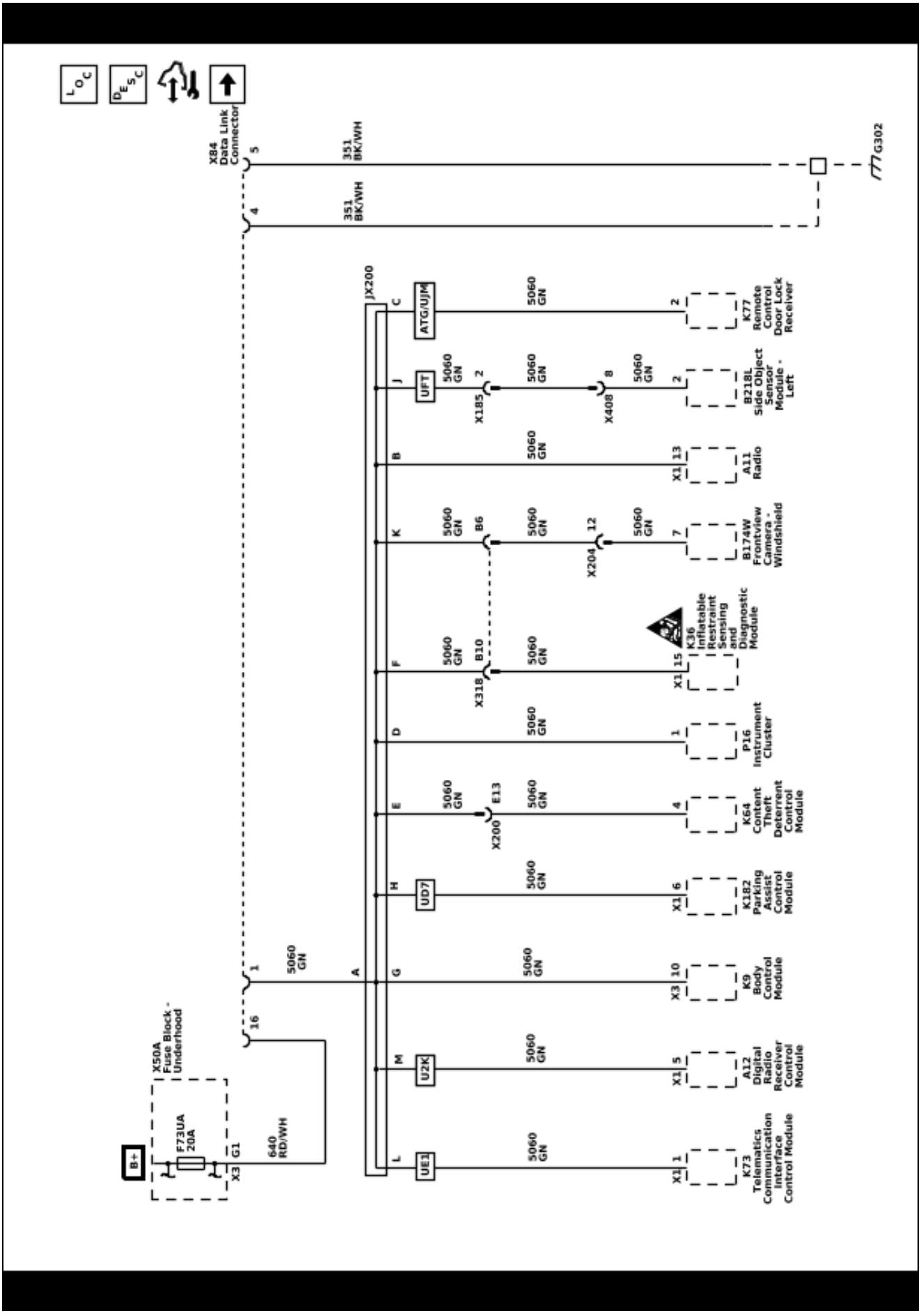
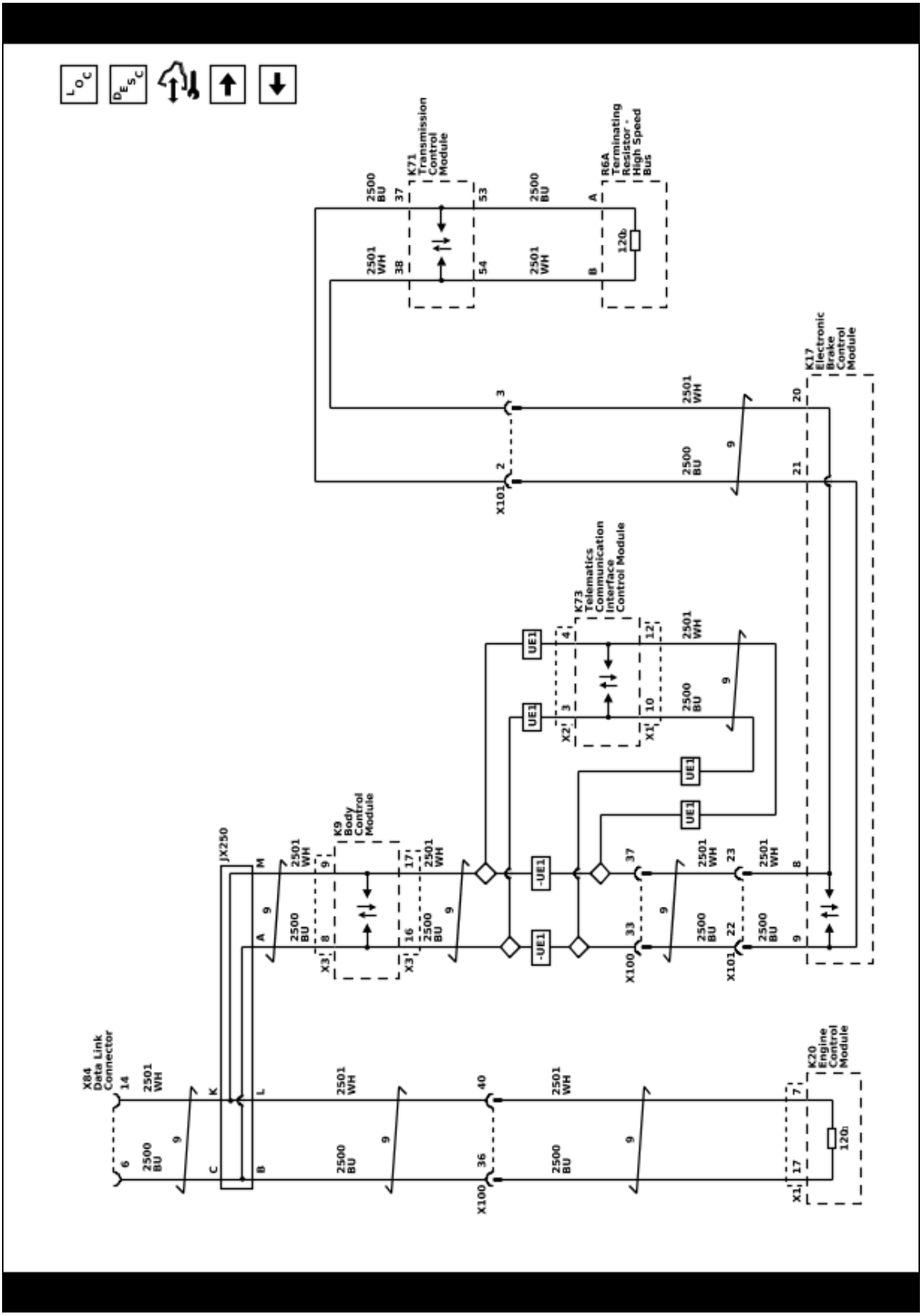
Data Communications

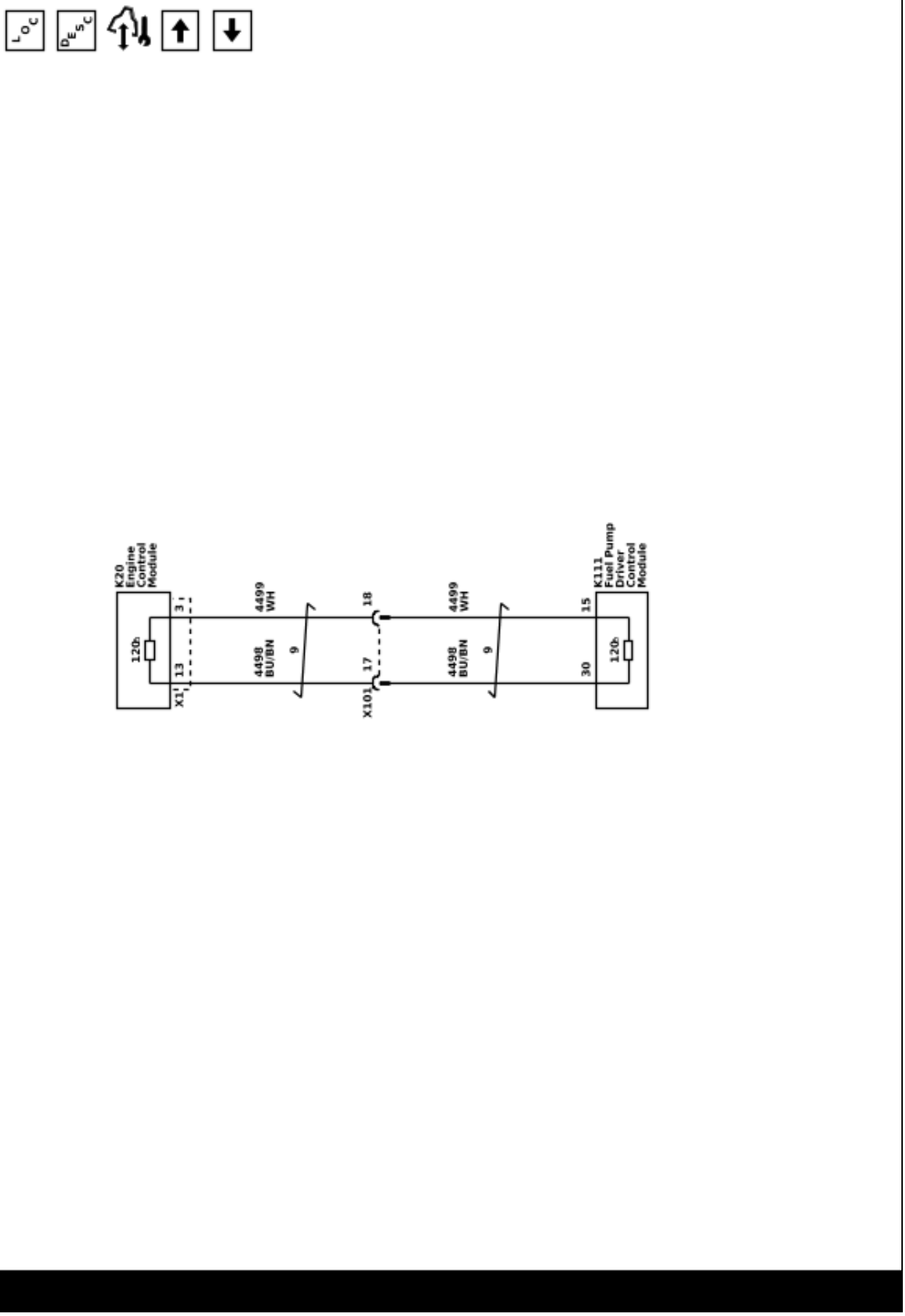
Schematic and Routing Diagrams

Data Communication Schematics (Low Speed GMLAN)

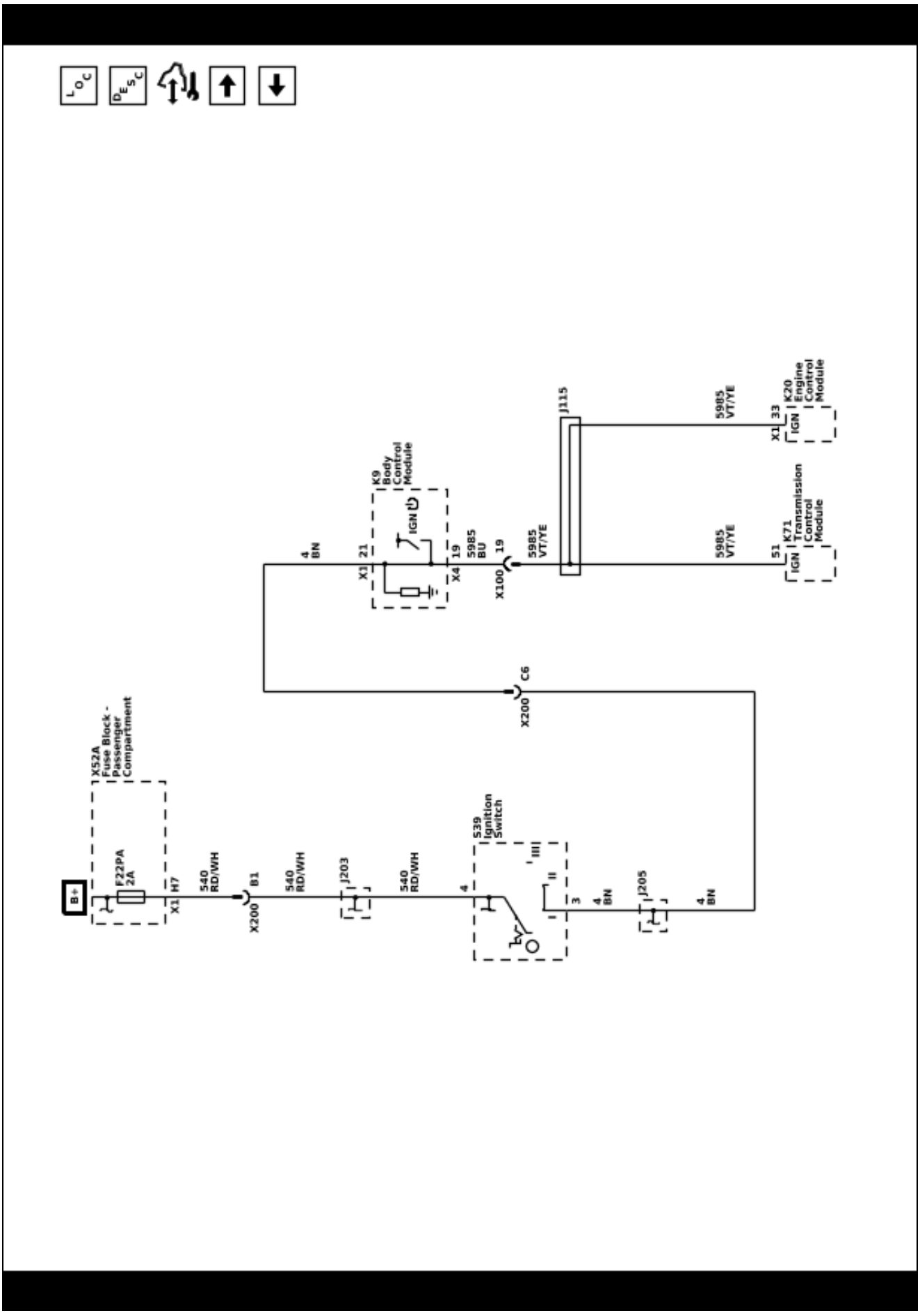


Data Communication Schematics (High Speed GMLAN)

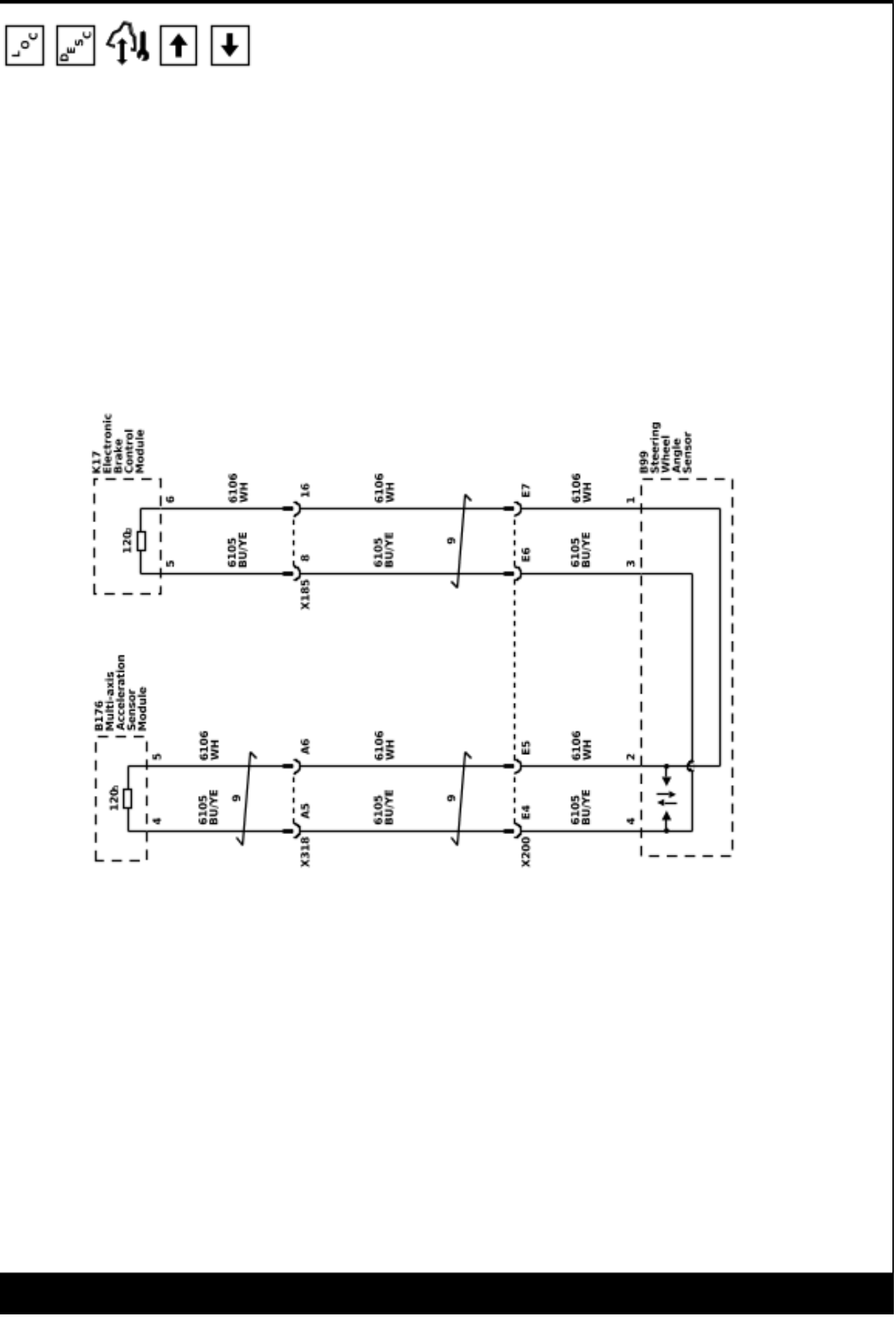


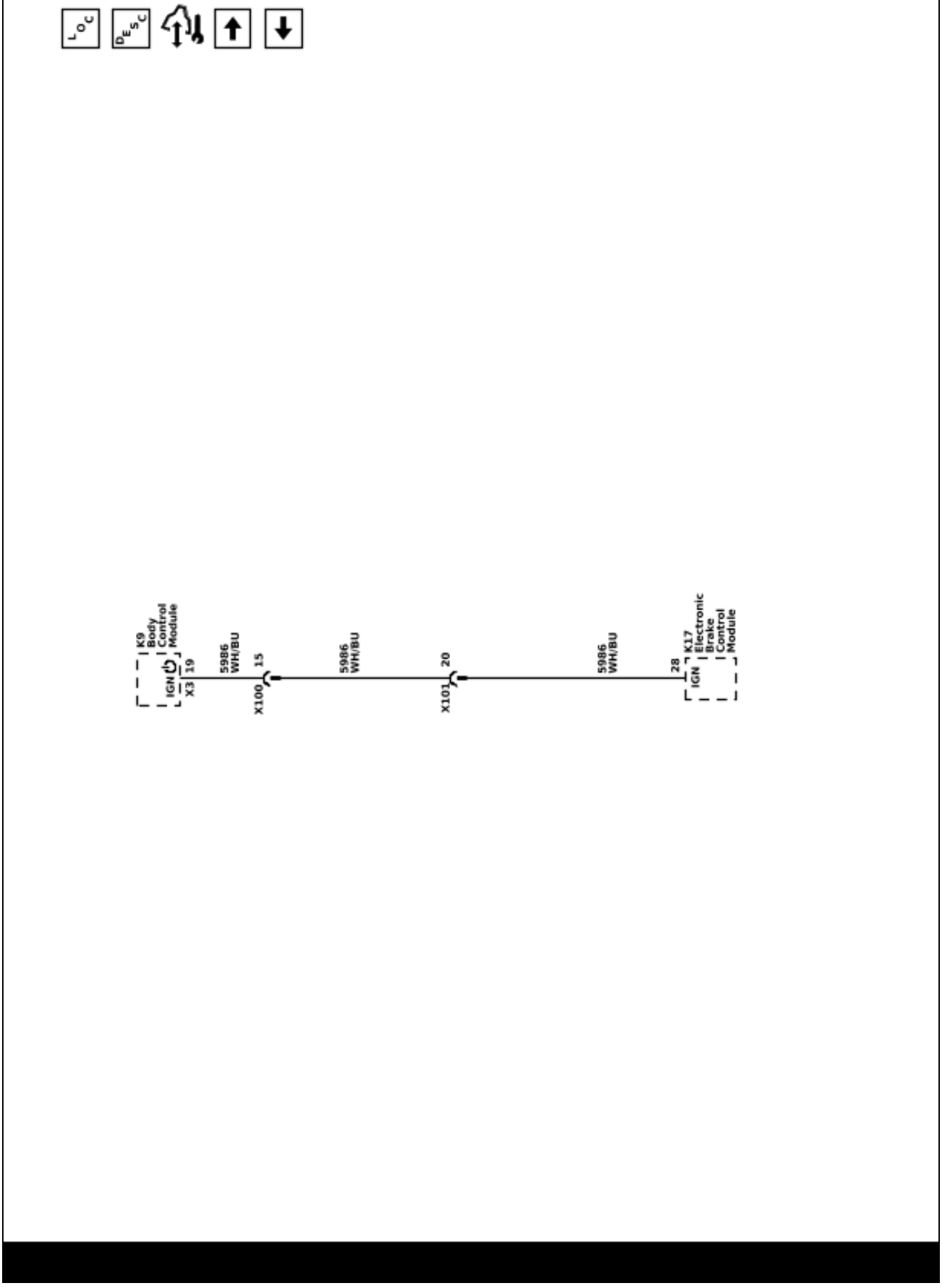

6279852
K20
Engine
Control
Module
120Ω
3
13
X1
4499
WH
4498
BU/BN
9
18
17
X101
4499
WH
4498
BU/BN
9
15
30
K111
Fuel Pump
Driver
Control
Module
120Ω

Data Communication Schematics (Accessory Wakeup)

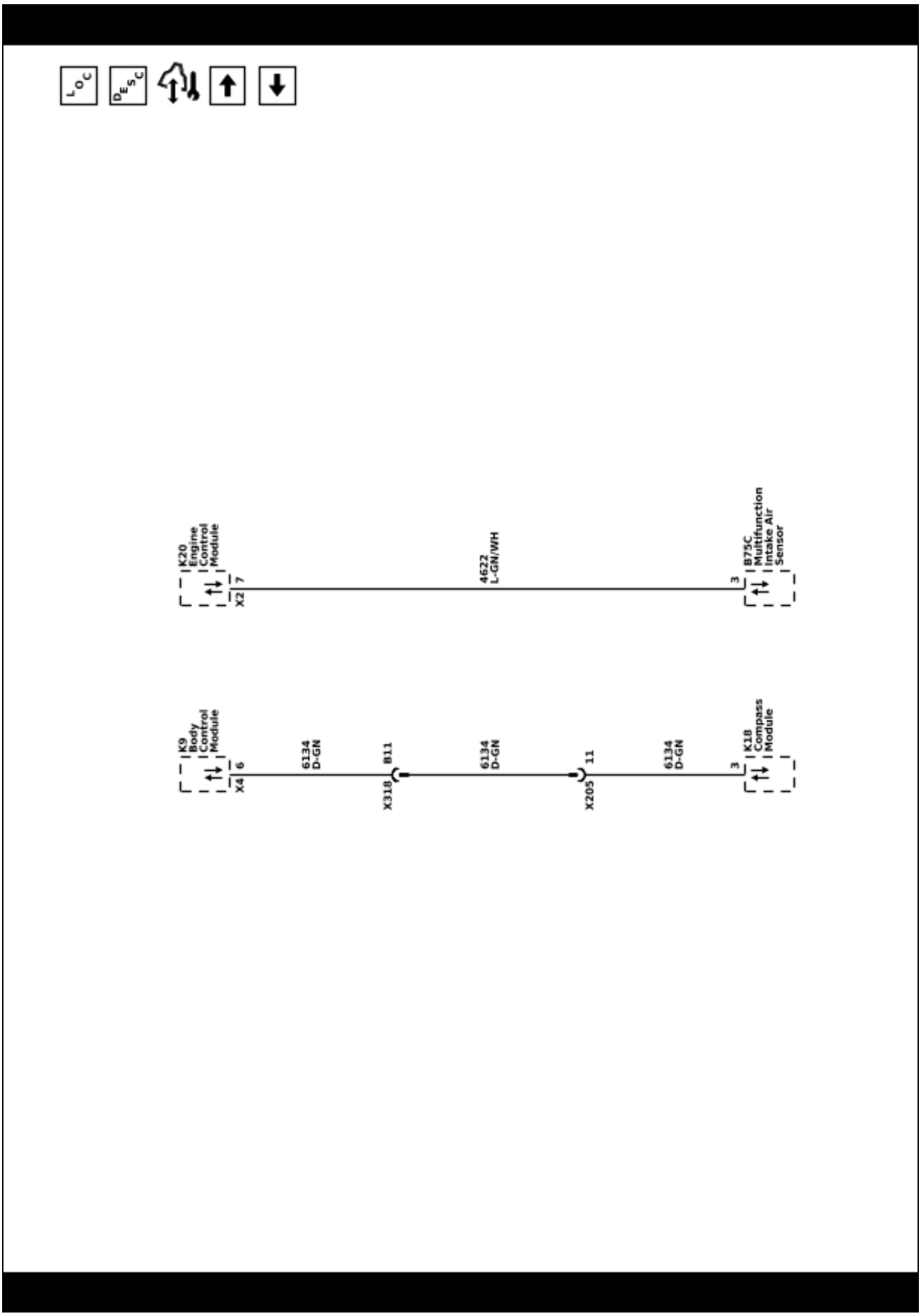


Data Communication Schematics (Chassis High Speed GMLAN)

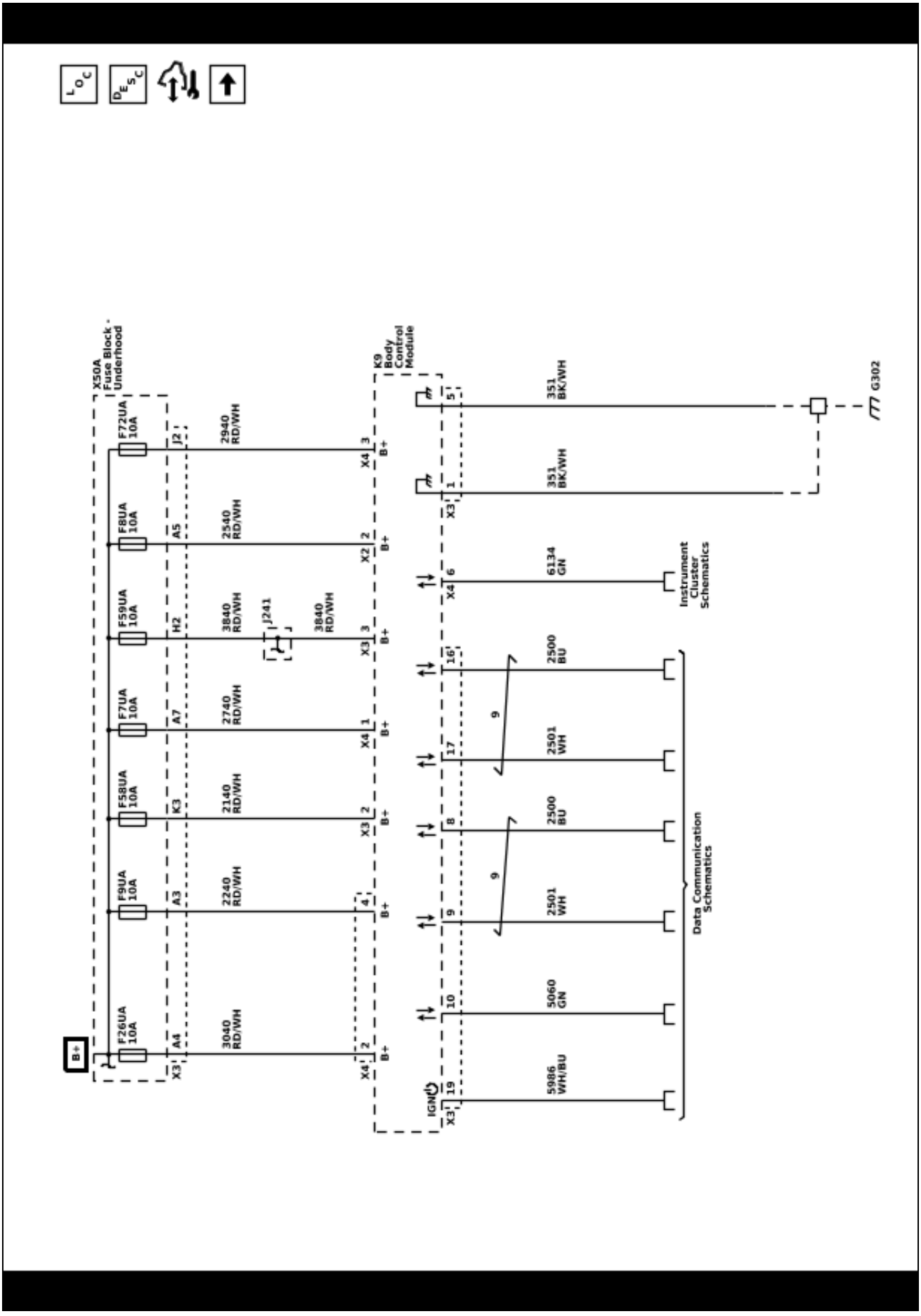



6279855
K9
Body
Control
Module
IGN
X3
19
5986
WH/BU
15
X100
5986
WH/BU
20
X101
5986
WH/BU
28
IGN
K17
Electronic
Brake
Control
Module

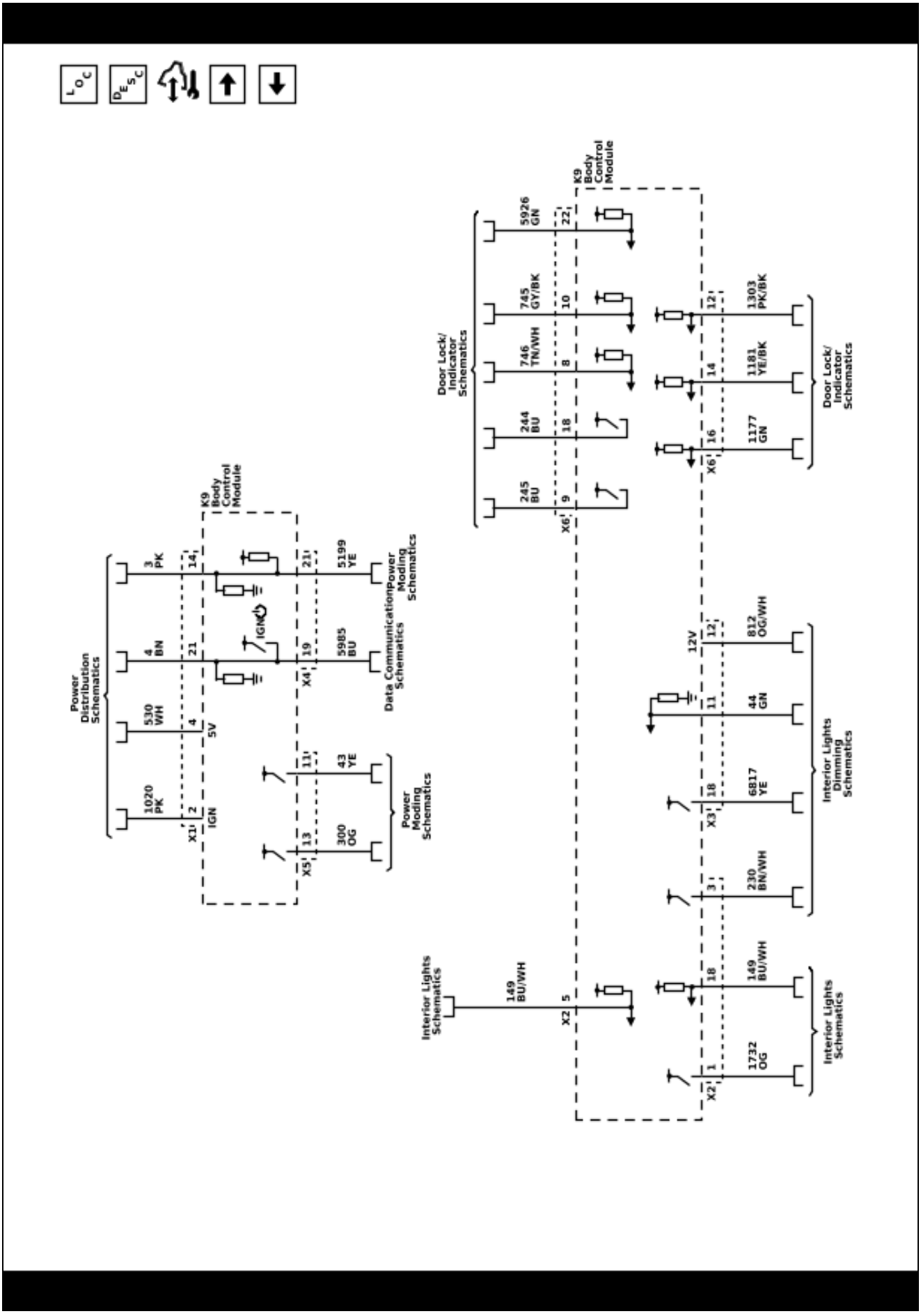
Data Communication Schematics (Local Interconnect Network)



Body Control System Schematics (BCM Power, Ground and Serial Data)



Body Control System Schematics (BCM Inputs and Outputs - 1 of 3)



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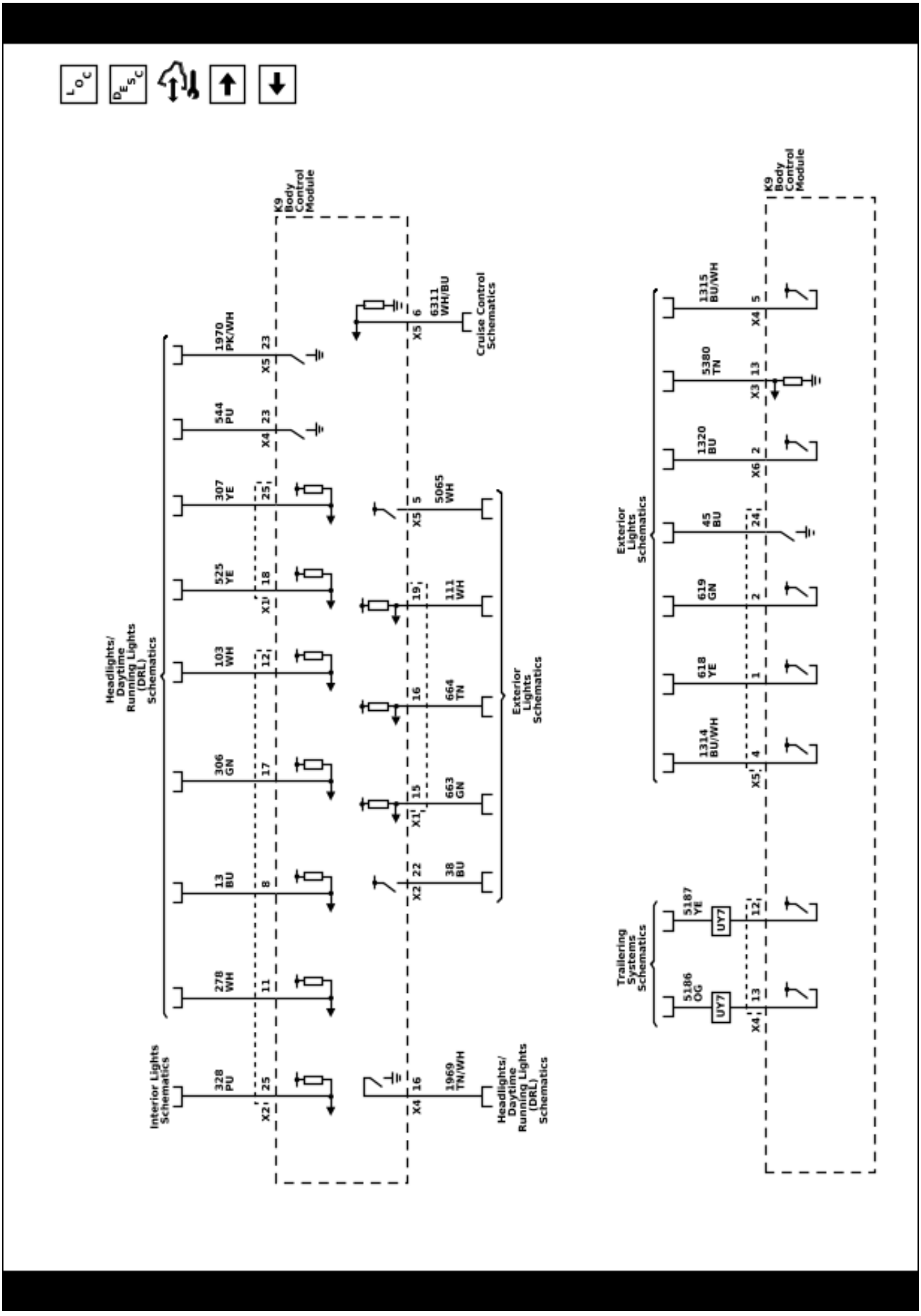
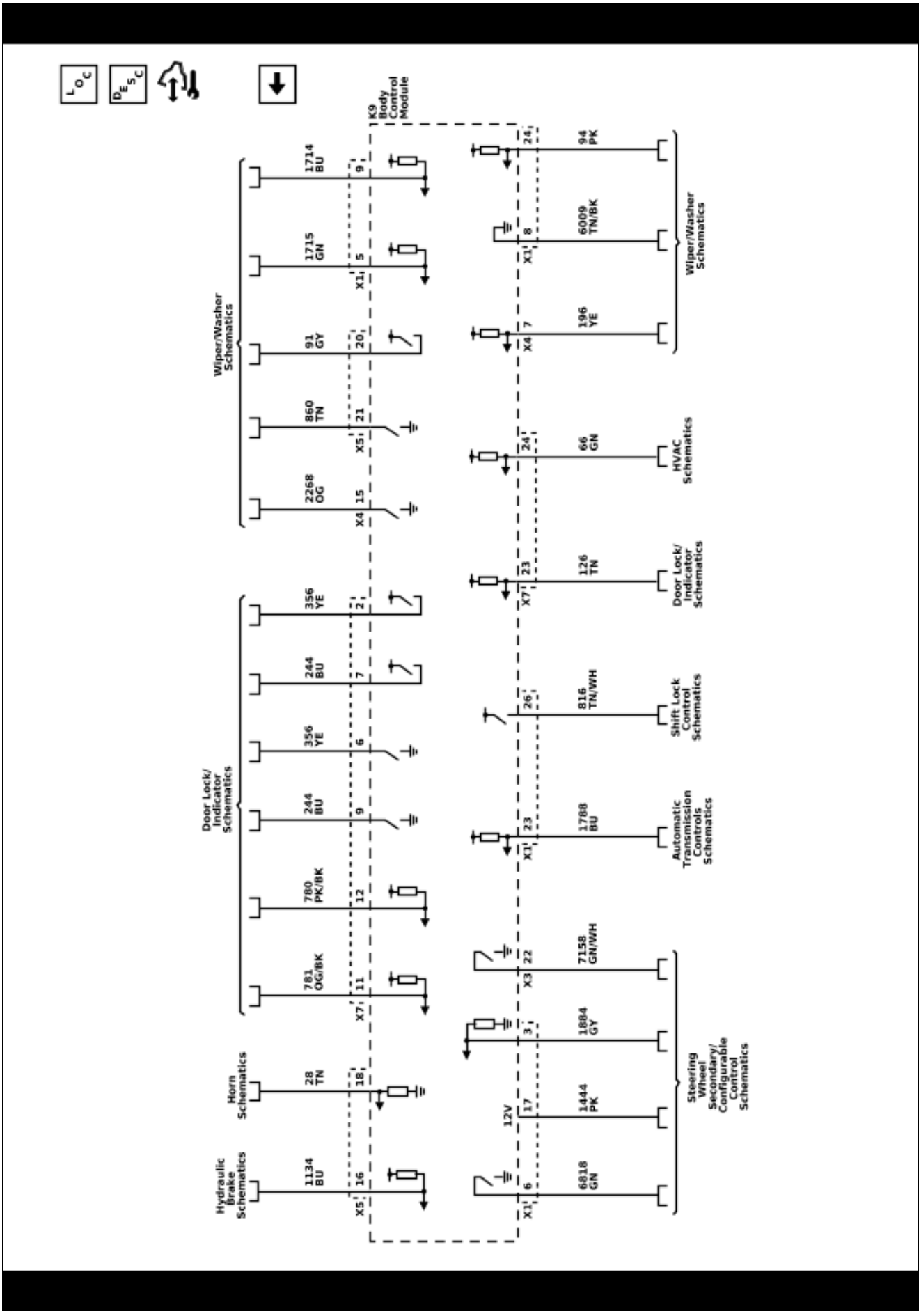
Body Control System Schematics (BCM Inputs and Outputs - 2 of 3)



Body Control System Schematics (BCM Inputs and Outputs - 3 of 3)



Description and Operation

Body Control System Description and Operation

The body control system consists of the body control module (BCM), communications, and various input and outputs. Some inputs, outputs and messages require other modules to interact with the BCM. The BCM also has discrete input and output terminals to control the vehicle's body functions. The BCM is wired to the GMLAN High speed serial data bus and the GMLAN Low speed serial data bus and acts as a gateway between them. If the BCM does not communicate the vehicle will not start due to the inability of the Engine/ Powertrain Control Module (ECM/PCM) and Vehicle Theft Deterrent (VTD) Control Module to communicate without the BCM providing the gateway function.

Power Mode Master

This vehicles BCM functions as the power mode master (PMM). The ignition switch is a low current switch with multiple discrete ignition switch signals to the PMM for determination the power mode that will be sent over the serial data circuits to the other modules that need this information, and so the PMM will activate relays and other direct outputs of the PMM as needed. Refer to *Power Mode Description and Operation on page 6-461* for a complete description of power mode functions.

Serial Data Gateway

The BCM in this vehicle functions as a gateway or translator. The purpose of the gateway is to translate serial data messages between the GMLAN high speed bus and the GMLAN low speed bus for communication between the various modules. The gateway will interact with each network according to that network's transmission protocol.

One example of this necessary communication is the communication between the Engine/Powertrain Control Module (ECM/PCM) which is high speed serial data and Vehicle Theft Deterrent (VTD) Control Module which is low speed serial data. If these modules can not exchange information, the vehicle will not start.

Communication between the BCM and a scan tool can be on the high speed GMLAN network or low speed GMLAN network. If one network is lost, the BCM can still communicate with the scan tool. A lost communication DTC typically is set in modules other than the module with a communication failure.

Body Control Module

The various body control module (BCM) input and output circuits are described in the corresponding functional areas indicated on the BCM electrical schematics. Some BCM functions with the subsystems may be as a gateway only or as an enable for the system. The BCM related systems/subsystems include, but are not limited to the following:

- Antilock brake system (ABS)—Refer to ABS Description and Operation.
- Cruise control system—Refer to Cruise Control Description and Operation.
- Exterior lighting—Refer to *Exterior Lighting Systems Description and Operation on page 2-24*.
- Horn system —Refer to *Horns System Description and Operation on page 2-9*.
- Instrument cluster indicator control—Refer to Instrument Cluster Description and Operation.
- Interior lighting—Refer to *Interior Lighting Systems Description and Operation on page 2-26*.
- Power door lock system —Refer to *Power Door Locks Description and Operation on page 2-41*.
- Rear window defogger system —Refer to *Rear Window Defogger Description and Operation on page 2-6*.
- Remote function actuation (RFA) control—Refer to Keyless Entry System Description and Operation.
- Retained accessory power (RAP)—Refer to *Retained Accessory Power Description and Operation on page 6-462*.
- Shift lock control system —Refer to *Automatic Transmission Shift Lock Control Description and Operation on page 7-5*.
- Starting system—Refer to *Starting System Description and Operation on page 4-15*.
- Supplemental inflatable restraint (SIR) system — Refer to Supplemental Inflatable Restraint System Description and Operation.
- Theft deterrent—Refer to Immobilizer Description and Operation.
- Wiper/Washer system functions—Refer to *Wiper/ Washer System Description and Operation (Wiper and Washers) on page 2-46*.

Data Link Communications Description and Operation

Circuit Description

The communication among control modules is performed primarily through the GMLAN high speed serial data circuit and the GMLAN low speed serial data circuits. The modules that need real time communication are attached to the high speed GMLAN network. The body control module (BCM) is the serial data gateway between the networks. The purpose of the gateway is to translate serial data messages between the GMLAN high speed bus and the GMLAN low speed bus. The Local Interconnect Network (LIN) is another serial data communication network used on this vehicle which is dedicated to the remote compass module (RCM) subsystem. Below are more detailed descriptions of the individual networks. The gateway will interact with each network according to that network's transmission protocol. Refer to *Body Control System Description and Operation on page 6-15* for more information about the gateway.

GMLAN High Speed Circuit Description

The data link connector (DLC) allows a scan tool to communicate with the high speed GMLAN serial data circuit. The serial data is transmitted on two twisted wires that allow speed up to 500 Kb/s. The twisted pair is terminated with two 120 ohms resistors. The resistors are used to reduce noise on the High Speed GMLAN bus during normal vehicle operation. The high speed GMLAN is a differential bus. The high speed GMLAN serial data (+) and high speed GMLAN serial data (−)

are driven to opposite extremes from a rest or idle level. The idle level, which is approximately 2.5 volts, is considered recessive transmitted data and is interpreted as a logic 1. Driving the lines to their extremes, adds one volt to the high speed GMLAN serial data (+) and subtracts one volt from the high speed GMLAN serial data (−) wire. This dominant state is interpreted as a logic 0. GMLAN network management supports selective start up and is based on virtual networks. A virtual network is a collection of signals started in response to a vehicle event. The starting of a virtual network signifies that a particular aspect of the vehicles functionality has been requested. A virtual network is supported by virtual devices, which represents a collection of signals owned by a single physical device. So, any physical device can have one or more virtual devices. The signal supervision is the process of determining whether an expected signal is being received or not. Failsofting is the ability to substitute a signal with a default value or a default algorithm, in the absence of a valid signal. Some messages are also interpreted as a heartbeat of a virtual device. If such a signal is lost, the application will set a no communication code against the respective virtual device. This code is displayed on the Tech 2 screen as a code against the physical device. Note: a loss of serial data DTC does not represent a failure of the module that the code is set in.

GMLAN Low Speed Circuit Description

The data link connector (DLC) allows a scan tool to communicate with the low speed GMLAN serial data circuit. The serial data is transmitted over a single wire to the appropriate control modules. The transmission speed for GMLAN low speed is up to 83.33 Kb/s. Under normal vehicle operating conditions, the speed of the bus is 33.33 Kb/s. This protocol produces a simple pulse train sent out over the GMLAN low speed serial data bus. When a module pulls the bus high, 5 volts, this creates a dominant logic state or 0 on the bus. When the bus is pulled low, 0 volts, it is translated as a recessive logic state or 1. To wake the control modules connected to the GMLAN low speed serial data bus, a high voltage wake up pulse is sent out over the bus, the voltage level of the pules is +10 volts. Modules connected to the GMLAN low speed bus can be part of a virtual network as described in the previous paragraph. Most modules on the GMLAN low speed serial data bus are connected to the bus in a parallel configuration. Refer to the schematics to determine modules that are not in parallel

Local Interconnect Network (LIN) Description

The remote compass module (RCM) communicates with the BCM utilizing a single wire LIN communication link. The BCM is the gateway for the GMLAN network. All data is communicated on the LIN bus, therefore there are only 3 circuits to the RCM as follows:

- Ground
- LIN bus
- Voltage

Data Link Connector (DLC)

The data link connector (DLC) is a standardized 16-cavity connector. Connector design and location is dictated by an industry wide standard, and provides the following:

- Pin 1 GMLAN low speed communications terminal
- Pin 4 Scan tool power ground terminal
- Pin 5 Common signal ground terminal
- Pin 6 High speed GMLAN serial data bus (+) terminal
- Pin 14 High speed GMLAN serial data bus (−) terminal
- Pin 16 Scan tool power, battery positive voltage terminal

Serial Data Reference

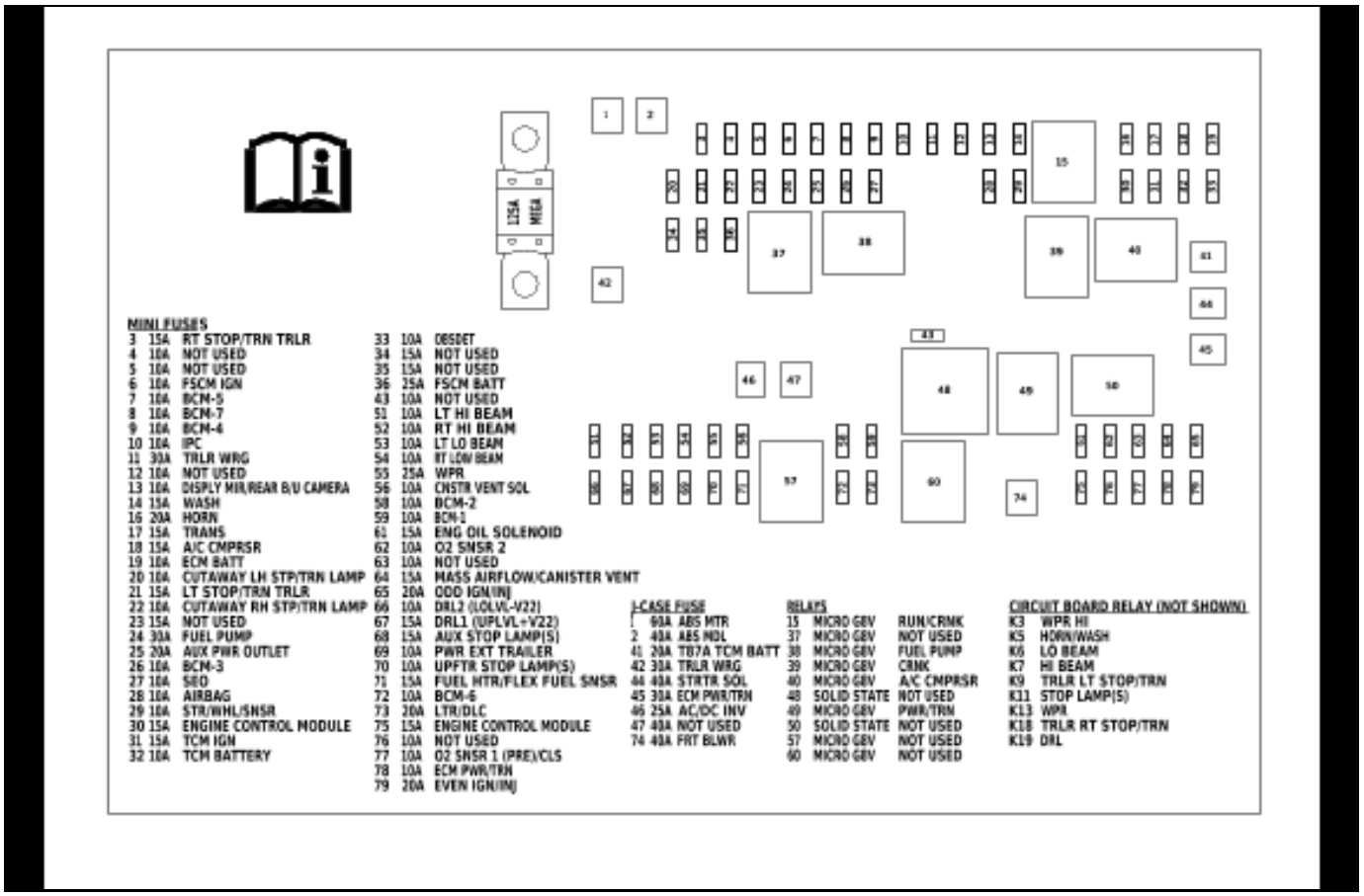
The scan tool communicates over the various busses on the vehicle. When a scan tool is installed on a vehicle, the scan tool will try to communicate with every module that could be optioned into the vehicle. If an option is not installed on the vehicle, the scan tool will display No Comm for that options specific control module. In order to avert misdiagnoses of No Communication with a specific module, refer to Data Link References for a list of modules, the bus they communicate with, and the RPO codes for a specific module.

Electrical Component and Inline Harness Connector End Views

Component Locator

Electrical Center Identification Views

X50A Fuse Block - Underhood Label



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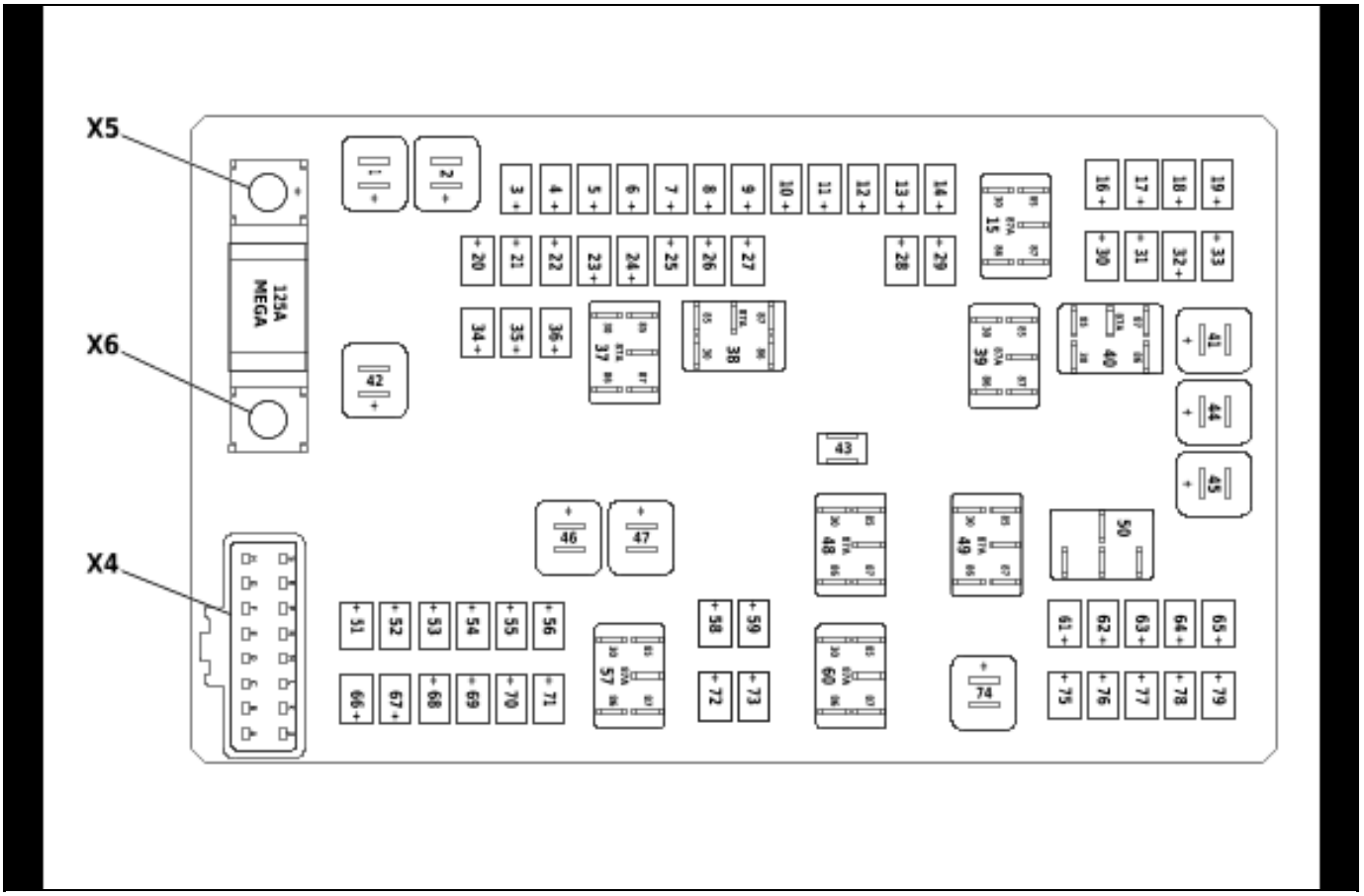
X50A Fuse Block - Underhood Top View



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Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Mega Fuses				
MEGA	—	MEGA	125A	• X52A Fuse Block - Passenger Compartment
Mini Fuses				
3	RT STOP/TRN TRLR	F3UA	15A	• X88 Trailer Connector
4	NOT USED	F4UA	10A	• Not Used
5	NOT USED	F5UA	10A	• Not Used
6	FSCM IGN	F6UA	10A	• K111 Fuel Pump Driver Control Module
7	BCM-5	F7UA	10A	• K9 Body Control Module
8	BCM-7	F8UA	10A	• K9 Body Control Module
9	BCM-4	F9UA	10A	• K9 Body Control Module
10	IPC	F10UA	10A	• P16 Instrument Cluster
11	TRLR WRG	F11UA	30A	• W8 Blunt Cut - Trailer Provision (UY7)
12	NOT USED	F12UA	10A	• Not Used
13	DISPLY MIR/ REAR B/U CAM-ERA	F13UA	10A	• A10 Inside Rearview Mirror (UVC) • B87 Rearview Camera (UVC)
14	WASH	F14UA	15A	• G24 Windshield Washer Pump
16	HORN	F16UA	20A	• P13 Horn Assembly
17	TRANS	F17UA	15A	• Not Used

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
18	A/C CMPRSR	F18UA	15A	• Q2 A/C Compressor Clutch (C60)
19	ECM BATT	F19UA	10A	• K20 Engine Control Module
20	CUTAWAY LH STP/TRN LAMP	F20UA	10A	• X405
21	LT STOP/TRN TRLR	F21UA	15A	• X88 Trailer Connector
22	CUTAWAY RH STP/TRN LAMP	F22UA	10A	• X405
23	NOT USED	F23UA	20A	• Not Used
24	FUEL PUMP	F24UA	20A	• Not Used
25	AUX PWR OUT-LET	F25UA	20A	• X80B Accessory Power Receptacle - Center Console 2
26	BCM-3	F26UA	10A	• K9 Body Control Module
27	SEO	F27UA	10A	• Not Used
28	AIRBAG	F28UA	10A	• K36 Inflatable Restraint Sensing and Diagnostic Module • S40 Passenger Air Bag Disable Switch (C99)
29	STR/WHL/SNSR	F29UA	10A	• Not Used
30	ENGINE CON-TROL MODULE	F30UA	15A	• K20 Engine Control Module
31	TCM IGN	F31UA	15A	• K71 Transmission Control Module • T12 Automatic Transmission Assembly
32	TCM BATTERY	F32UA	10A	• Not Used
33	OBSDET	F33UA	10A	• B218L Side Object Sensor Module - Left (UFT) • B218R Side Object Sensor Module - Right (UFT) • K182 Parking Assist Control Module (UD7)
34	NOT USED	F34UA	15A	• Not Used
35	NOT USED	F35UA	15A	• Not Used
36	FSCM BATT	F36UA	25A	• K111 Fuel Pump Driver Control Module
43	NOT USED	F43UA	10A	• Not Used
51	LT HI BEAM	F51UA	10A	• E4E Headlamp - Left High Beam
52	RT HI BEAM	F52UA	10A	• E4F Headlamp - Right High Beam
53	LT LO BEAM	F53UA	10A	• E4G Headlamp - Left Low Beam
54	RT LO BEAM	F54UA	10A	• E4H Headlamp - Right Low Beam
55	WPR	F55UA	25A	• KR12B Windshield Wiper Relay
56	CNSTR VENT SOL	F56UA	10A	• Q13 Evaporative Emission Vent Solenoid Valve
58	BCM-2	F58UA	10A	• K9 Body Control Module
59	BCM-1	F59UA	10A	• K9 Body Control Module
61	ENG OIL SOLE-NOID	F61UA	15A	• Q44 Engine Oil Pressure Control Solenoid Valve (L8T)
62	O2 SNSR 2	F62UA	10A	• B52D Heated Oxygen Sensor - Bank 1 Sensor 2 • B52F Heated Oxygen Sensor - Bank 2 Sensor 2
63	NOT USED	F63UA	10A	• Not Used
64	MASS AIRFLOW/ CANISTER VENT	F64UA	15A	• B75C Multifunction Intake Air Sensor • Q12 Evaporative Emission Purge Solenoid Valve

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
65	ODD IGN/INJ	F65UA	20A	• K20 Engine Control Module • T8A Ignition Coil 1 • T8C Ignition Coil 3 • T8E Ignition Coil 5 • T8G Ignition Coil 7 (L8T)
66	DRL2 (LOLVL-V22)	F66UA	10A	• Not Used
67	DRL1 (UPLVL +V22)	F67UA	15A	• E4G Headlamp - Left Low Beam
68	AUX STOP LAMP(S)	F68UA	15A	• X405 (Cutaway)
69	PWR EXT TRAILER	F69UA	10A	• W8 Blunt Cut - Trailer Provision (UY7)
70	UPFTR STOP LAMP(S)	F70UA	10A	• W25 Blunt Cut - Configurable Provision
71	FUEL HTR/FLEX FUEL SNSR	F71UA	15A	• Not Used
72	BCM-6	F72UA	10A	• K9 Body Control Module
73	LTR/DLC	F73UA	20A	• X80A Accessory Power Receptacle - Center Console 1 • X84 Data Link Connector
75	ENGINE CON-TROL MODULE	F75UA	15A	• K20 Engine Control Module
76	NOT USED	F76UA	10A	• Not Used
77	O2 SNSR 1 (PRE)/ CLS	F77UA	10A	• B52C Heated Oxygen Sensor - Bank 1 Sensor 1 • B52E Heated Oxygen Sensor - Bank 2 Sensor 1
78	ECM PWR/TRN	F78UA	10A	• Not Used
79	EVEN IGN/INJ	F79UA	20A	• K20 Engine Control Module • T8B Ignition Coil 2 • T8D Ignition Coil 4 • T8F Ignition Coil 6 • T8H Ignition Coil 8 (L8T)
J-Case Fuses				
1	ABS MTR	F1UA	60A	• K17 Electronic Brake Control Module
2	ABS MDL	F2UA	40A	• K17 Electronic Brake Control Module
41	T87A TCM BATT	F41UA	20A	• K71 Transmission Control Module
42	TRLR WRG	F42UA	30A	• X88 Trailer Connector (UY7)
44	STRTR SOL	F44UA	40A	• M64 Starter Motor
45	ECM PWR/TRN	F45UA	30A	• K20 Engine Control Module
46	AC/DC INV	F46UA	25A	• T1 Accessory DC/AC Power Inverter Module (KI4)
47	FAN LO	F47UA	40A	• Not Used
74	FRT BLWR	F74UA	40A	• R3 Blower Motor Resistor

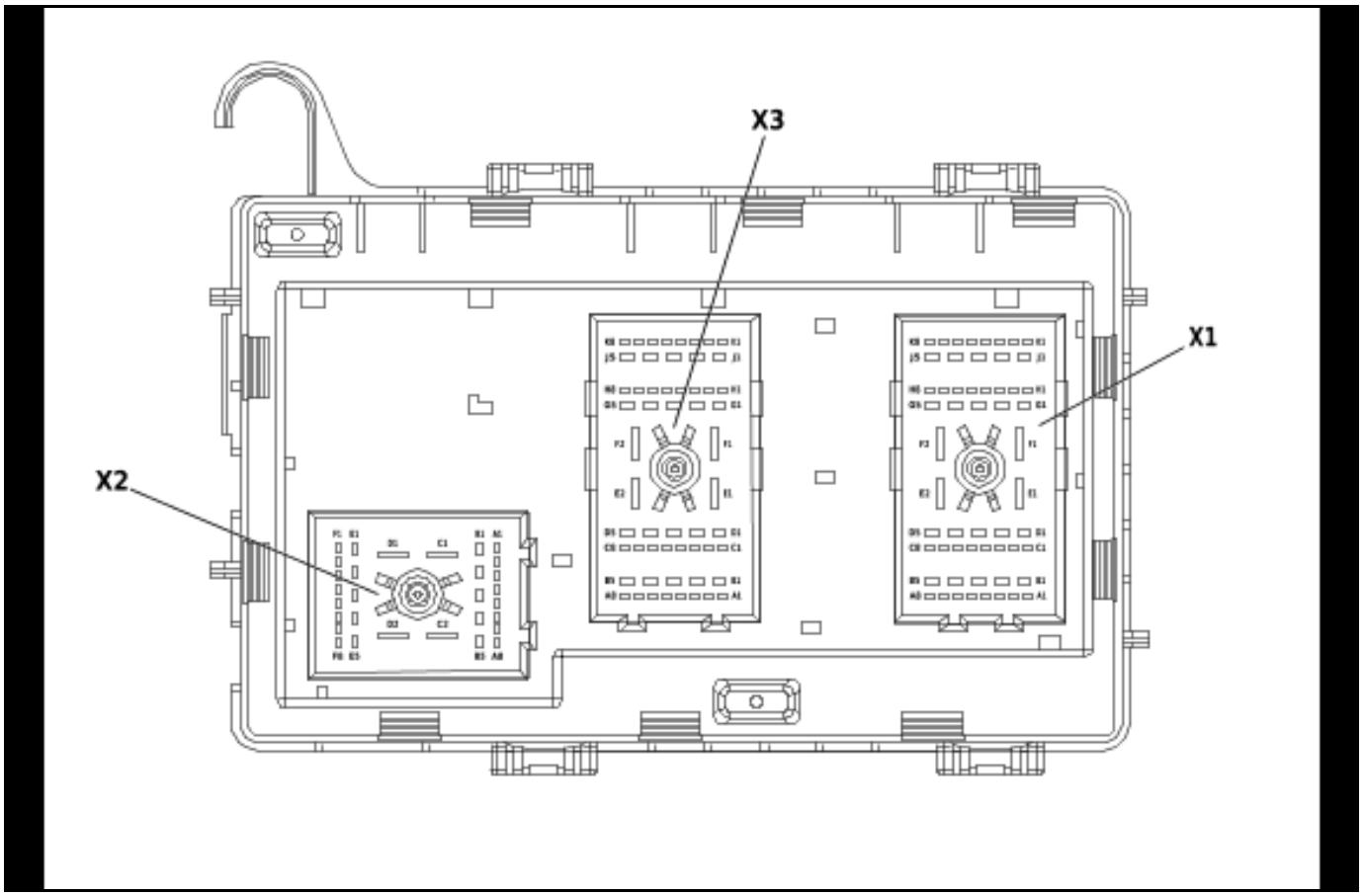
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
Relays				
15	RUN/CRNK	KR93 Ignition Run/ Crank Relay	—	• F6UA • F10UA • F12UA • F13UA • F17UA • F28UA • F29UA • F30UA • F31UA
37	NOT USED	KR150 Relay - Spare	—	• F23UA
38	FUEL PUMP	KR23A Fuel Pump Relay	—	• F24UA
39	CRNK	KR27 Starter Relay	—	• F44UA
40	A/C CMPRSR	KR29 A/C Compressor Clutch Relay	—	• F18UA
48	NOT USED	KR150 Relay - Spare	—	• Not Used
49	PWR/TRN	KR75 Engine Controls Ignition Relay	—	• F45UA • F61UA • F62UA • F63UA • F64UA • F65UA • F71UA • F75UA • F76UA • F77UA • F78UA • F79UA
50	NOT USED	KR150 Relay - Spare	—	• Not Used
57	NOT USED	KR150 Relay - Spare	—	• Not Used
60	NOT USED	KR150 Relay - Spare	—	• Not Used
Important: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
K3	WPR HI	KR12C Windshield Wiper Speed Control Relay	—	• M75 Windshield Wiper Motor
K5	HORN/WASH	KR3 Horn Relay, KR11 Windshield Washer Pump Relay	—	• F14UA • F16UA
K6	LO BEAM	KR49 Headlamp Low Beam Relay	—	• F53UA • F54UA
K7	HI BEAM	KR48 Headlamp High Beam Relay	—	• F51UA • F52UA
K9	TRLR LT STOP/ TRN	KR63L Trailer Stop/Turn Signal Lamp Relay - Left	—	• F5UA • F20UA • F21UA

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
K11	STOP LAMP(S)	KR59 Stop Lamp Relay	—	• F68UA • F69UA • F70UA
K13	WPR	KR12B Windshield Wiper Relay	—	• KR12C Windshield Wiper Speed Control Relay
K18	TRLR RT STOP/ TRN	KR63R Trailer Stop/Turn Signal Lamp Relay - Right	—	• F3UA • F4UA • F22UA
K19	DRL	KR42 Daytime Running Lamps Relay	—	• F66UA • F67UA

X50A Fuse Block - Underhood Bottom View



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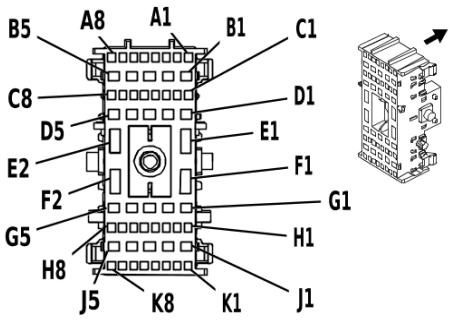
X50A Fuse Block - Underhood X1



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Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 15477823
Service Connector: 13574911
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series(L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13575753	J-35616-4A (PU)	J-38125-215A
III	19367554	J-35616-44 (YE)	J-38125-558

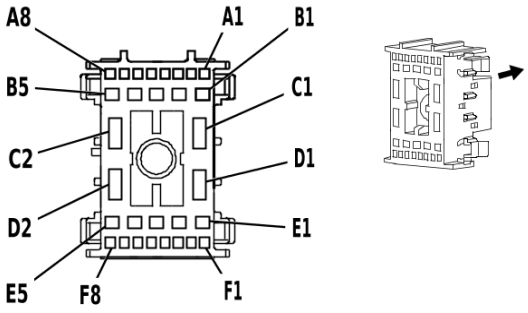
X50A Fuse Block - Underhood X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	RD / WH	140	Battery Positive Voltage	I	—
A2 - A8	—	—	—	Not Occupied	—	—
B1	0.5	RD / BU	840	Battery Positive Voltage	II	—
B2	0.5	BN / GN	59	Air Conditioning Compressor Clutch Control	II	—
B3	—	—	—	Not Occupied	—	—
B4	1	BN / GY	29	Horn Control	II	—
B5	0.5	VT / GN	439	Run/Crank Ignition 1 Voltage	II	—
C1	—	—	—	Not Occupied	—	—
C2	0.5	WH / GY	459	Air Conditioning Compressor Clutch Relay Control	I	—
C3 - C5	—	—	—	Not Occupied	—	—
C6	0.5	YE / BK	625	Starter Enable Relay Control	I	—
C7	1	BK	1250	Ground	I	—
C8	—	—	—	Not Occupied	—	—
D1	1.5	RD / GN	1840	Battery Positive Voltage	II	—
D2	—	—	—	Not Occupied	—	—
D3	0.5	VT / BK	2139	Run/Crank Ignition 1 Voltage	II	—
D4 - D5	—	—	—	Not Occupied	—	—
E1	4	YE	6	Starter Solenoid Crank Ignition Voltage	III	—
E2	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
F1	2.5	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	III	—
F2	5	RD / PU	542	Battery Positive Voltage	III	—
G1	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	II	—
G2	1	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	II	—
G3	—	—	—	Not Occupied	—	—
G4	0.75	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	II	—
G5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	II	—
H1 - H8	—	—	—	Not Occupied	—	—
J1	0.75	VT / BU	5292	Powertrain Main Relay Fused Supply Voltage 3	II	—
J2	1	VT / BU	5292	Powertrain Main Relay Fused Supply Voltage 3	II	L8T
	1	VT / BK	1239	Run/Crank Ignition 1 Voltage	II	LV1
J3	—	—	—	Not Occupied	—	—
J4	0.75	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	II	—
J5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	II	—
K1	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
K2 - K3	—	—	—	Not Occupied	—	—
K4	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	I	—
K5 - K7	—	—	—	Not Occupied	—	—
K8	0.5	YE	5991	Powertrain Relay Coil Control	I	L8T
	0.5	BN	5991	Powertrain Relay Coil Control	I	LV1

X50A Fuse Block - Underhood X2



1665657

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 13567518
Service Connector: Service by Harness - See Part Catalog
Description: 30-Way F 150, 280 GT Metri-Pack 800 Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	Not required	J-35616-44 (YE)	No Tool Required
IV	Not required	J-35616-4A (PU)	No Tool Required

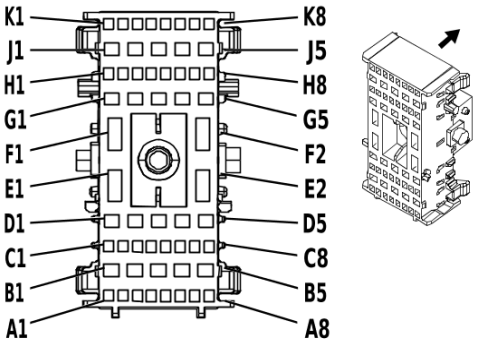
X50A Fuse Block - Underhood X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	—	—	—	Not Occupied	—	—
A2	1	YE	618	Left Rear Turn Signal Lamp Control	I	—
A3	0.8	BU / WH	149	Courtesy Lamp Control	I	—
A4	1	GN	619	Right Rear Turn Signal Lamp Control	I	—
A5 - A6	—	—	—	Not Occupied	—	—
A7	1	BN	2109	Trailer Park Lamp Control	I	—
A8	0.5 0.5	VT VT	2739 2739	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	I I	CUTAWAY FULL BODY GAS
B1 - B4	—	—	—	Not Occupied	—	—
B5	1	GN	1619	Right Rear Trailer Stop/Turn Lamp Control	IV	—
C1	—	—	—	Not Occupied	—	—
C2	2.5	RD / VT	1640	Battery Positive Voltage	III	—
D1	3	RD / BK	742	Battery Positive Voltage	III	—
D2	5	RD / YE	442	Battery Positive Voltage	III	—
E1	—	—	—	Not Occupied	—	—
E2	0.8	BU	1320	Center High Mounted Stop Lamp Control 2	IV	—
E3	3	BU	47	Trailer Auxiliary Control	II	—
E4	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	IV	—

X50A Fuse Block - Underhood X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
E5	2.5	RD / VT	1940	Battery Positive Voltage	II	—
F1	1	GN	1624	Trailer Backup Lamp Control	I	—
F2	0.5	RD / GN	40	Battery Positive Voltage	I	—
F3	1	BN	2109	Trailer Park Lamp Control	I	—
F4 - F6	—	—	—	Not Occupied	—	—
F7	1	GN	619	Right Rear Turn Signal Lamp Control	I	—
F8	1	YE	618	Left Rear Turn Signal Lamp Control	I	—

X50A Fuse Block - Underhood X3



1581655

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15477822
Service Connector: 19115189
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575355	J-35616-44 (YE)	J-38125-558
II	13575503	J-35616-4A (PU)	J-38125-215A
III	13575735	J-35616-14 (GN)	J-38125-215A
IV	13575753	J-35616-4A (PU)	J-38125-215A
V	13575754	J-35616-4A (PU)	J-38125-215A
VI	19300627	J-35616-14 (GN)	J-38125-215A

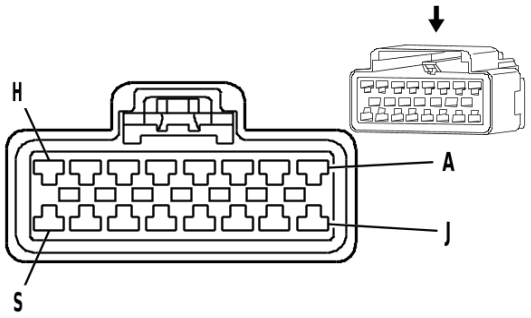
X50A Fuse Block - Underhood X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	PK	1639	Run/Crank Ignition 1 Voltage	VI	—
A2	—	—	—	Not Occupied	—	—
A3	0.8	RD / WH	2240	Battery Positive Voltage	III	—
A4	0.8	RD / WH	3040	Battery Positive Voltage	III	—
A5	0.5	RD / WH	2540	Battery Positive Voltage	VI	—
A6	—	—	—	Not Occupied	—	—
A7	0.8	RD / WH	2740	Battery Positive Voltage	III	—
A8	—	—	—	Not Occupied	—	—
B1	3	RD / WH	3940	Battery Positive Voltage	V	—
B2	0.35	PK	1139	Run/Crank Ignition 1 Voltage	II	—
B3	0.35	PK	1139	Run/Crank Ignition 1 Voltage	II	—
B4	1	RD / WH	1040	Battery Positive Voltage	IV	—
B5	1	BN	2109	Trailer Park Lamp Control	IV	—
C1	0.5	PK	239	Run/Crank Ignition 1 Voltage	VI	—
C2 - C3	—	—	—	Not Occupied	—	—
C4	0.35	OG	5186	Left Trailer Turn Signal Lamp Control	VI	—
C5	1	BN	2109	Trailer Park Lamp Control	III	—

X50A Fuse Block - Underhood X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
C6	1	GN	619	Right Rear Turn Signal Lamp Control	III	—
C7	0.8	BU / WH	149	Courtesy Lamp Control	III	—
C8	1	YE	618	Left Rear Turn Signal Lamp Control	III	—
D1	0.5	OG	228	Windshield Washer Pump Control	II	—
D2	0.35	YE	5199	Run/Crank Relay Coil Control	II	—
D3	1	GN	1624	Trailer Backup Lamp Control	IV	—
D4	3	BU	47	Trailer Auxiliary Control	V	—
D5 - E1	—	—	—	Not Occupied	—	—
E2	3	RD / WH	4140	Battery Positive Voltage	I	—
F1 - F2	—	—	—	Not Occupied	—	—
G1	0.8	RD / WH	640	Battery Positive Voltage	IV	—
G2	0.35	OG	2268	Windshield Washer Relay Control	II	—
G3	0.35	YE	5187	Right Trailer Turn Signal Lamp Control	II	—
G4	2	PU	92	Windshield Wiper Motor High Speed Control	V	—
G5	2	GN	95	Windshield Wiper Motor Low Speed Control	V	—
H1	—	—	—	Not Occupied	—	—
H2	1	RD / WH	3840	Battery Positive Voltage	III	—
H3	0.35	TN	28	Horn Relay Control	III	—
H4	0.35	PK / WH	1970	Headlamp Low Beam Relay Control	VI	—
H5	0.35	PU	544	DRL Relay Control	VI	—
H6	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	VI	—
H7	0.5	WH	5065	Stop Lamp Relay Coil Control	VI	—
H8	0.35	TN	860	Windshield Wiper Switch High Signal	VI	—
J1	1	RD / WH	640	Battery Positive Voltage	IV	—
J2	0.8	RD / WH	2940	Battery Positive Voltage	IV	—
J3	0.75	GY / BN	2309	Front Park Lamp Control	IV	—
J4	0.8	BU / WH	1315	Right Front Turn Signal Lamp Control	IV	—
J5 - K2	—	—	—	Not Occupied	—	—
K3	0.8	RD / WH	2140	Battery Positive Voltage	III	—
K4	0.5	BU	20	Stop Lamp Control	VI	—
K5	0.5	BU / WH	6311	Cruise/ETC/TCC Brake Signal	VI	—
K6	—	—	—	Not Occupied	—	—
K7	0.8	BU / WH	1314	Left Front Turn Signal Lamp Control	III	—
K8	0.35	TN / WH	1969	Headlamp High Beam Relay Control	VI	—

X50A Fuse Block - Underhood X4



823321

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 15326952
Service Connector: 15306426
Description: 16-Way F 280 GT Series(BK)

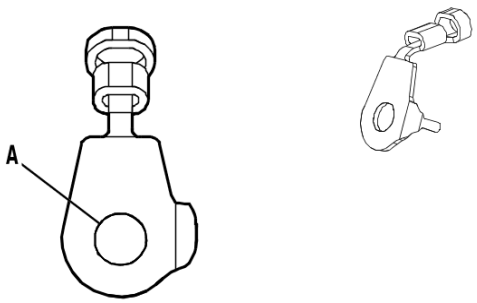
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575503	J-35616-4A (PU)	J-38125-215A
II	13575753	J-35616-4A (PU)	J-38125-215A

X50A Fuse Block - Underhood X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	—	Not Occupied	—	—
B	0.5	GY / BN	2309	Front Park Lamp Control	I	—
C	0.5	GY / BN	2309	Front Park Lamp Control	I	—
D	0.75	BU / WH	1315	Right Front Turn Signal Lamp Control	II	—
E	0.75	BU / WH	1314	Left Front Turn Signal Lamp Control	II	—
F	0.5 0.8	YE YE	712 712	Left Headlamp Low Beam Control Left Headlamp Low Beam Control	II	— —
G - J	—	—	—	Not Occupied	—	—
K	0.5	YE	712	Left Headlamp Low Beam Control	I	—
L	—	—	—	Not Occupied	—	—
M	0.75	WH	311	Right Headlamp High Beam Control	II	—
N	0.75	WH	711	Left Headlamp High Beam Control	II	—
P	0.75	YE	312	Right Headlamp Low Beam Control	II	—
R - S	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X5



4831180

Connector Part Information

Harness Type: Battery Positive Cable
OEM Connector: 12160208
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

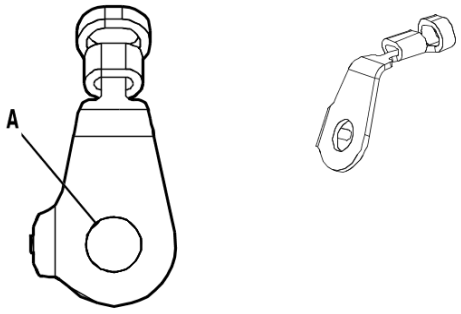
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50A Fuse Block - Underhood X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	1	Unfused Battery Positive Voltage	I	—

X50A Fuse Block - Underhood X6



4831192

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13595106
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

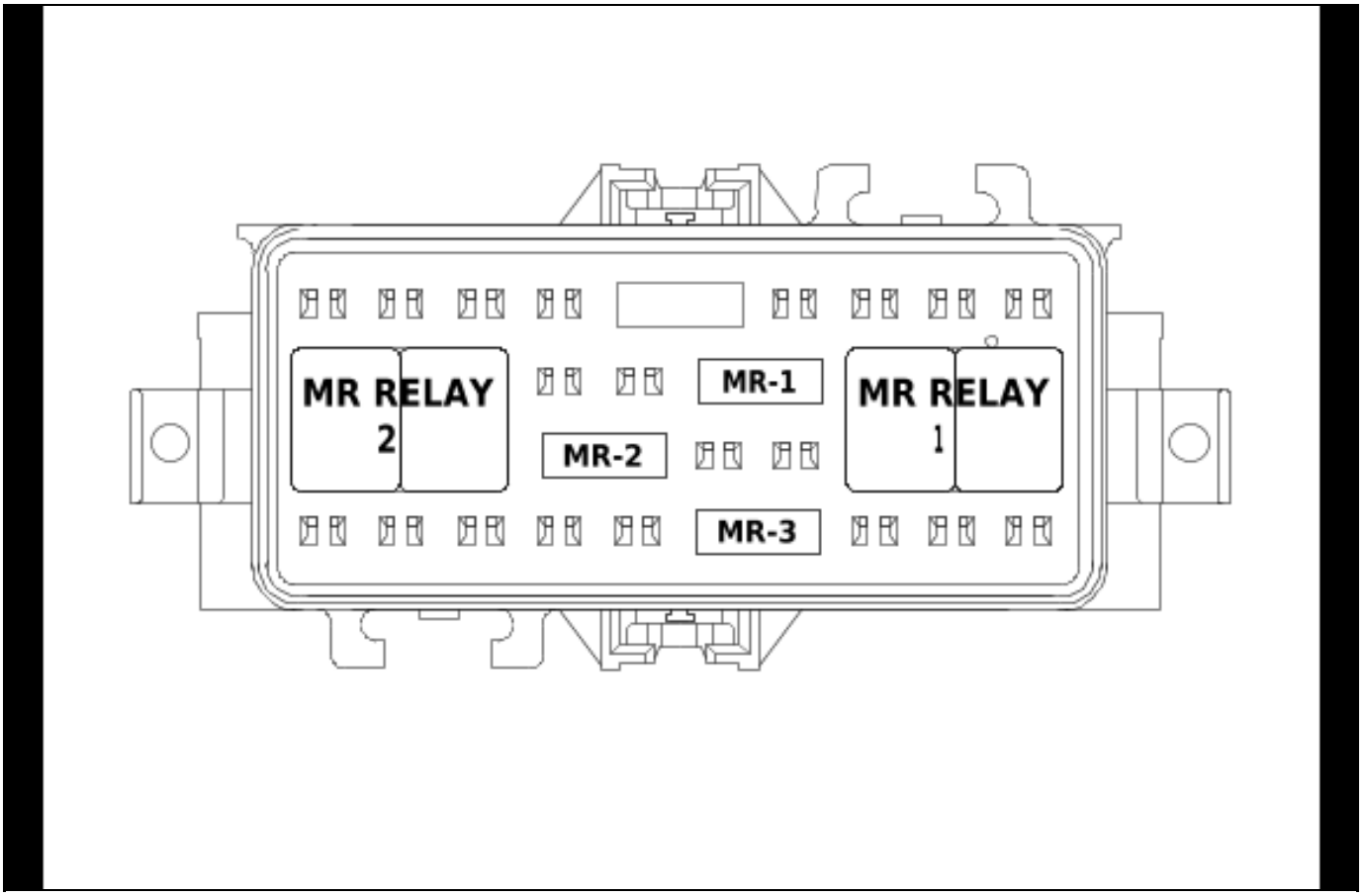
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50A Fuse Block - Underhood X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	842	Battery Positive Voltage	I	—

X50B Fuse Block - Underhood Auxiliary Top View

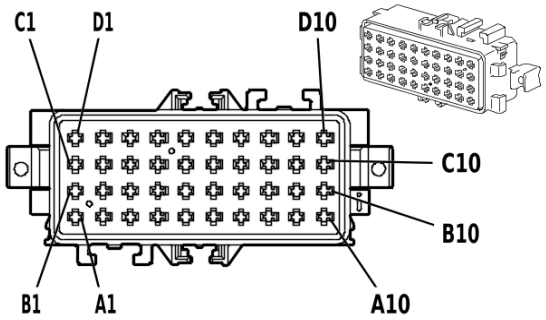


4845612

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	MR-2	F1UB	30A	• KR161A Configurable Provision Relay 1 (9L7)
F2	MR-1	F2UB	30A	• KR161B Configurable Provision Relay 2 (9L7)
F3	MR-3	F3UB	10A	• W25 Blunt Cut - Configurable Provision (9L7)
Relays				
R1	MR RELAY 1	KR90 Door Unlock Relay (WRF), KR161B Configurable Provision Relay 2 (9L7)	—	• W25 Blunt Cut - Configurable Provision
R2	MR RELAY 2	KR97 Door Lock Relay (WRF), KR161A Configurable Provision Relay 1 (9L7)	—	• W25 Blunt Cut - Configurable Provision

X50B Fuse Block - Underhood Auxiliary



2002692

Connector Part Information

Harness Type: Accessory Wiring Harness
OEM Connector: 1587335-1
Service Connector: Service by Harness - See Part Catalog
Description: 40-Way F 2.8 MCP Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

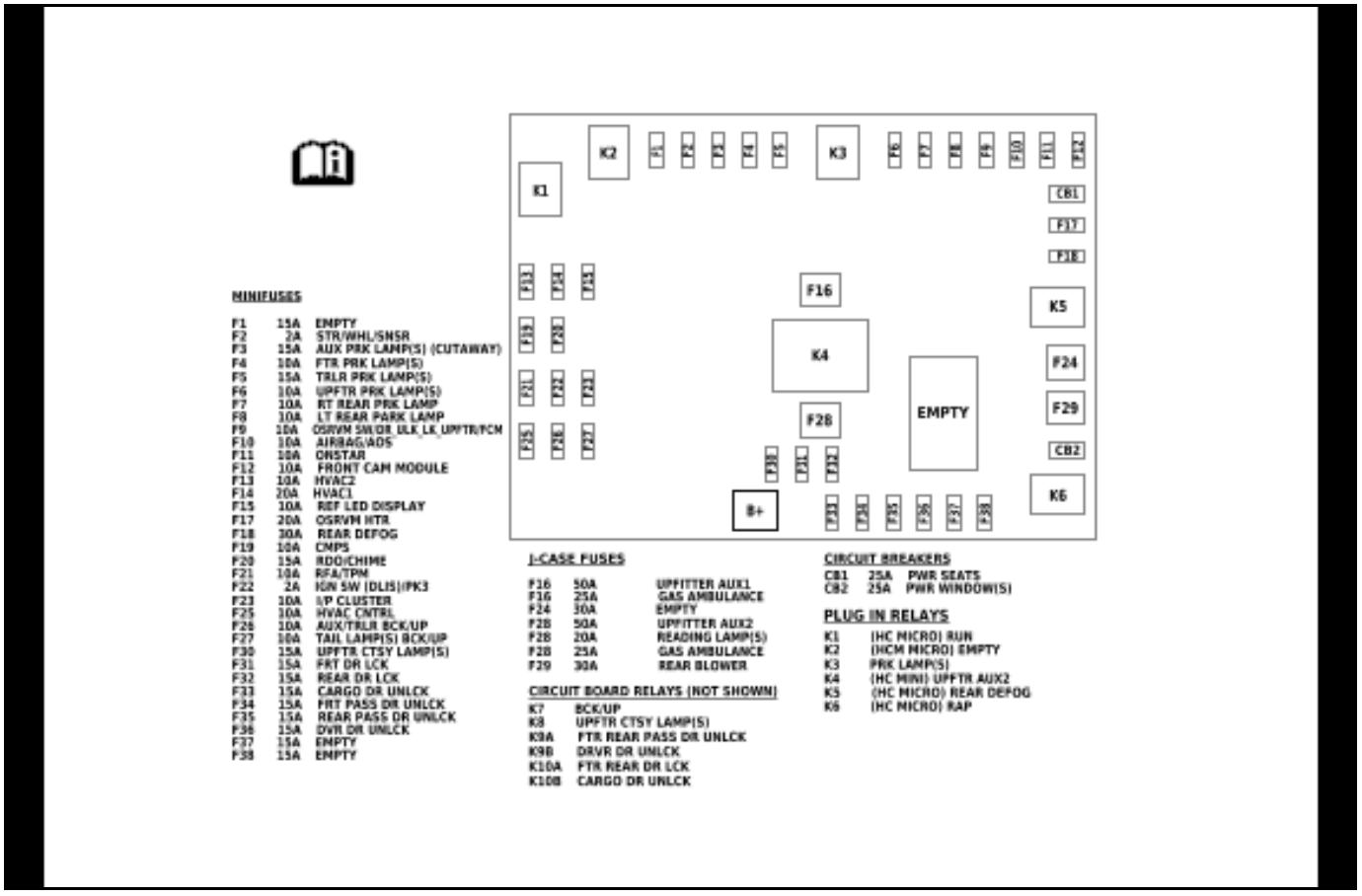
X50B Fuse Block - Underhood Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A5	—	—	—	Not Occupied	—	—
A6	1	RD / BK	102	Battery Positive Voltage	II	—
A7	1	RD / WH	5440	Battery Positive Voltage	II	—
A8 - A10	—	—	—	Not Occupied	—	—
B1	2.5	RD / WH	5440	Battery Positive Voltage	I	—
B2	—	—	—	Not Occupied	—	—
B3	0.5	BU	6843	Auxiliary Device Relay 2 Control	II	—
B4	2.5	RD / BK	102	Battery Positive Voltage	I	—
B5	2.5	RD / WH	5440	Battery Positive Voltage	I	—
B6 - B7	—	—	—	Not Occupied	—	—
B8	2.5	RD / WH	5440	Battery Positive Voltage	I	—
B9	—	—	—	Not Occupied	—	—
B10	0.5	BU	6842	Auxiliary Device Relay 1 Control	II	—
C1	0.5	BK	1850	Ground	II	—
C2	—	—	—	Not Occupied	—	—
C3	2.5	GN	6840	Auxiliary Device 2 Switched Voltage	I	—
C4 - C5	—	—	—	Not Occupied	—	—
C6	2.5	RD / BK	102	Battery Positive Voltage	I	—
C7	2.5	RD / WH	5440	Battery Positive Voltage	I	—
C8	0.5	BK / WH	1551	Signal Ground	II	—
C9	—	—	—	Not Occupied	—	—

X50B Fuse Block - Underhood Auxiliary (cont'd)

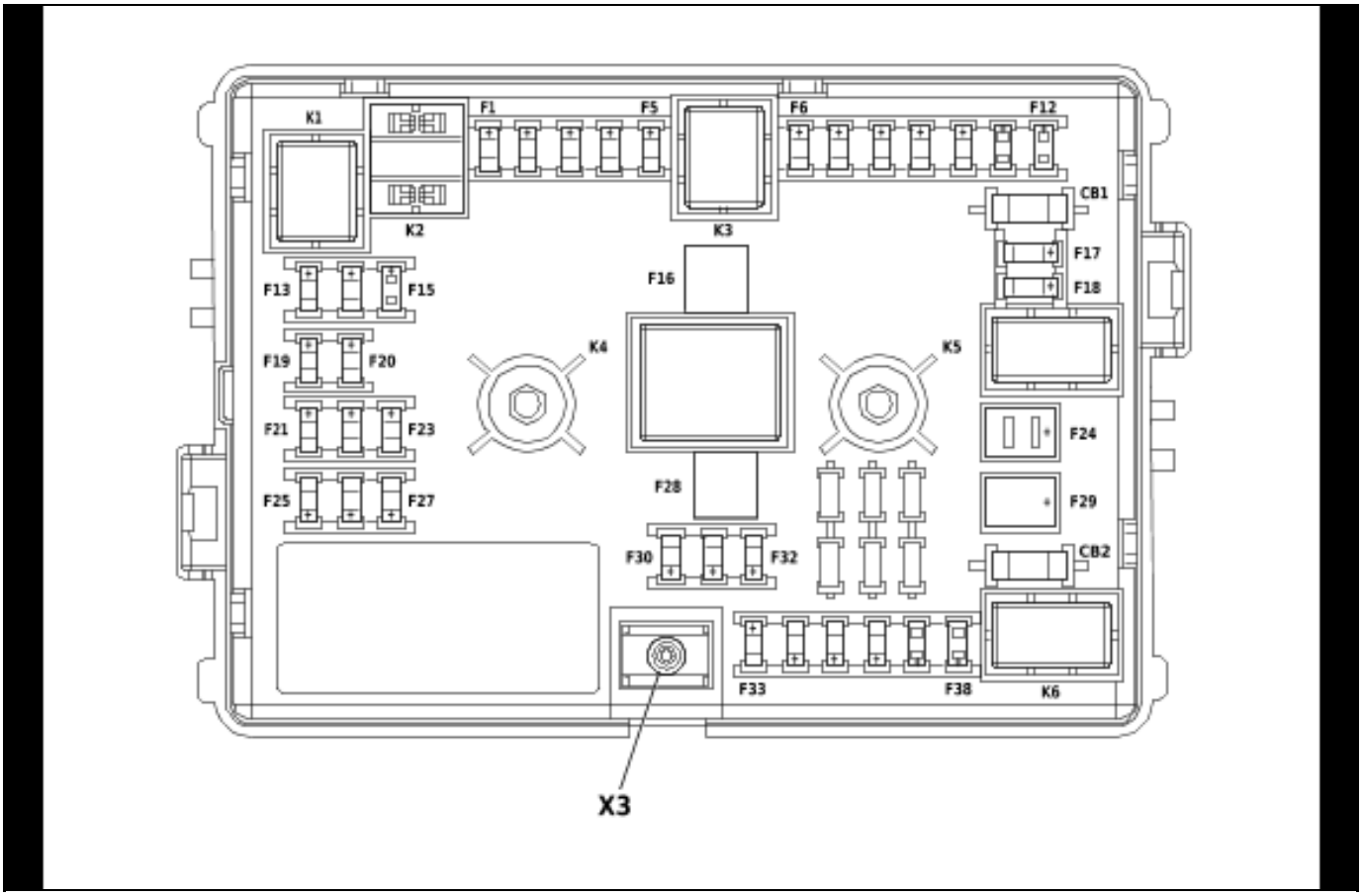
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
C10	2.5	GN	6839	Auxiliary Device 1 Switched Voltage	I	—
D1 - D10	—	—	—	Not Occupied	—	—

X52A Fuse Block - Passenger Compartment Label



6117509

X52A Fuse Block - Passenger Compartment Top View



3988743

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Mini Fuses				
F1	EMPTY	F1PA	15A	• Not Used
F2	STR/WHL/SNSR	F2PA	2A	• S70L Steering Wheel Controls Switch - Left (K34 or W1Y) • S70R Steering Wheel Controls Switch - Right (W1Y)
F3	AUX PRK LAMP(S) (CUT-AWAY)	F3PA	15A	• X405 (Cutaway)
F4	FRT PRK LAMP(S)	F4PA	10A	• E2LF Side Marker Lamp - Left Front • E2RF Side Marker Lamp - Right Front • E4N Park/Turn Signal Lamp - Left • E4P Park/Turn Signal Lamp - Right
F5	TRLR PRK LAMP(S)	F5PA	15A	• X88 Trailer Connector (UY7)
F6	UPFTR PRK LAMP(S)	F6PA	10A	• Not Used
F7	RT REAR PRK LAMP	F7PA	10A	• E5T Tail/Stop and Turn Signal Lamp - Right (Cargo or Passenger)
F8	LT REAR PARK LAMP	F8PA	10A	• E5S Tail/Stop and Turn Signal Lamp - Left (Cargo or Passenger) • E7 License Plate Lamp (Cargo or Passenger)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F9	OSRVM SW/ DR_ULK_L-K_UPFTR/FCM	F9PA	10A	• B174W Frontview Camera - Windshield • S52 Outside Rearview Mirror Switch (DEB or DE5)
F10	AIRBAG/AOS	F10PA	10A	• K36 Inflatable Restraint Sensing and Diagnostic Module
F11	ONSTAR	F11PA	10A	• K73 Telematics Communication Interface Control Module (UE1)
F12	FRONT CAM MODULE	F12PA	10A	• Not Used
F13	HVAC2	F13PA	10A	• K33A HVAC Control Module - Auxiliary • KR32B Blower Motor High Speed Relay - Auxiliary (C69/C36/ENC) • KR32C Blower Motor Low Speed Relay - Auxiliary (C69/C36/ENC) • KR32D Blower Motor Medium Speed Relay - Auxiliary (C69/C36/ENC) • KR81 Auxiliary Battery Relay 1 (TP3) • M6 Air Temperature Door Actuator • M6B Air Temperature Door Actuator - Auxiliary (C69/C36/ENC) • M37B Mode Door Actuator - Auxiliary (C69/C36/ENC) • S34 HVAC Controls Switch Assembly (C49/DE5/C60) • S34F HVAC Controls Switch Assembly - Auxiliary Front • S34R HVAC Controls Switch Assembly - Auxiliary Rear (Rear HVAC Controls)
F14	HVAC1	F14PA	20A	• S34 HVAC Controls Switch Assembly • X81 Accessory Power Receptacle - 110V AC (KI4)
F15	REF LED DIS-PLAY	F15PA	10A	• P43 Collision Alert Indicators
F17	OSRVM HTR	F17PA	20A	• A9A Outside Rearview Mirror - Driver (DEB or DE5) • A9B Outside Rearview Mirror - Passenger (DEB or DE5)
F18	REAR DEFOG	F18PA	30A	• E18L Rear Defogger Grid - Left (C49) • E18R Rear Defogger Grid - Right (C49)
F19	CMPS	F19PA	10A	• B176 Multi-axis Acceleration Sensor Module • K18 Compass Module (U80)
F20	RDO/CHIME	F20PA	15A	• A11 Radio (Without UL5) • A12 Digital Radio Receiver Control Module (U2K)
F21	RFA/TPM	F21PA	10A	• K77 Remote Control Door Lock Receiver (ATG or UJM)
F22	IGN SW (DLIS)/ PK3	F22PA	2A	• K64 Content Theft Deterrent Control Module • S39 Ignition Switch
F23	I/P CLUSTER	F23PA	10A	• P16 Instrument Cluster
F25	HVAC CNTRL	F25PA	10A	• S34 HVAC Controls Switch Assembly (C49 or DE5)
F26	AUX/TRLR BCK/ UP	F26PA	10A	• X88 Trailer Connector (-NE7) • X405 (Cutaway) • X450 (NE7)
F27	TAIL LAMP(S) BCK/UP	F27PA	10A	• E5A Backup Lamp - Left (Cargo or Passenger) • E5B Backup Lamp - Right (Cargo or Passenger)

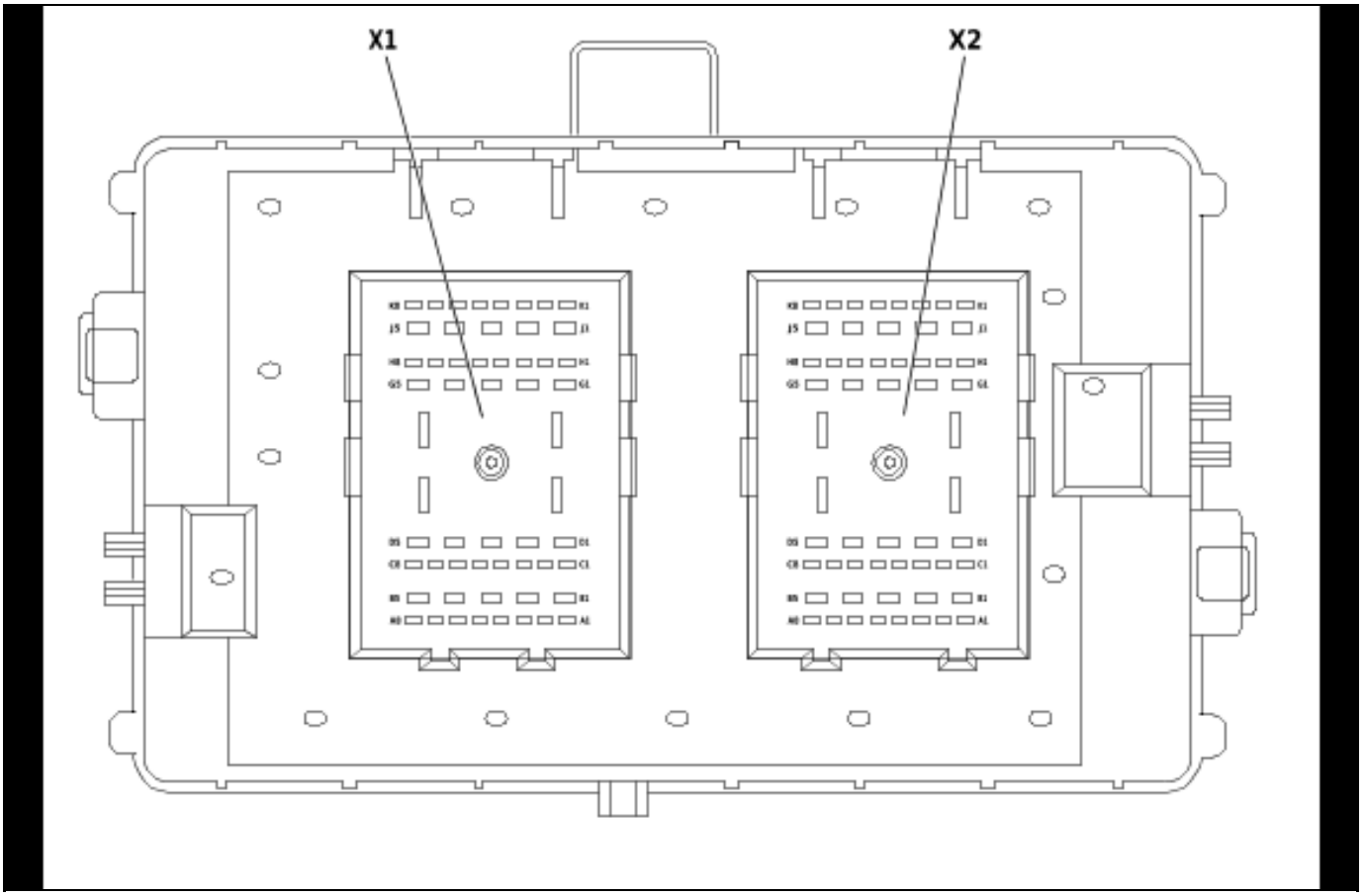
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F30	UPFTR CTSY LAMP(S)	F30PA	15A	• E36AC Dome Lamp - Left Roof Rail (Cargo) • E36AD Dome Lamp - Right Roof Rail (Cargo) • E36AH Dome Lamp (Cargo) • E37F Dome/Reading Lamps - Front • E37M Dome/Reading Lamps - Middle (Passenger) • E37R Dome/Reading Lamps - Rear (Passenger) • K9 Body Control Module • X405
F31	FRT DR LCK	F31PA	15A	• A23D Door Latch Assembly - Driver (AU3) • A23P Door Latch Assembly - Passenger (AU3)
F32	REAR DR LCK	F32PA	15A	• M13 Door Latch Assembly - Rear Cargo (Passenger or Cargo with AU3) • M14RR Door Lock Actuator - Right Rear (E24 or YA2) • X87RB Sliding Door Jamb Contact Plate - Right Body (E24 or YA2)
F33	CARGO DR UNLCK	F33PA	15A	• M13 Door Latch Assembly - Rear Cargo (Cargo or Passenger with AU3)
F34	FRT PASS DR UNLCK	F34PA	15A	• A23P Door Latch Assembly - Passenger (AU3)
F35	REAR PASS DR UNLCK	F35PA	15A	• KR90A Cargo Door Unlock Relay (AU3) • M14RR Door Lock Actuator - Right Rear (AU3) • X87RB Sliding Door Jamb Contact Plate - Right Body (AU3)
F36	DVR DR UNLCK	F36PA	15A	• A23D Door Latch Assembly - Driver (AU3)
F37	EMPTY	F37PA	15A	• Not Used
F38	EMPTY	F38PA	15A	• Not Used
J-Case Fuses				
F16	UPFITTER AUX1	F16PA	50A	• W12 Blunt Cut - Emergency Vehicle Provision (YF1)
F16	GAS AMBULANCE	F16PA	25A	• Not Used
F24	EMPTY	F24PA	30A	• Not Used
F28	UPFITTER AUX2	F28PA	50A	• X321 (YF1)
F28	READING LAMP(S)	F28PA	20A	• Not Used
F28	GAS AMBULANCE	F28PA	25A	• Not Used
F29	REAR BLOWER	F29PA	30A	• KR32B Blower Motor High Speed Relay - Auxiliary (C36/C69/ENC) • KR32C Blower Motor Low Speed Relay - Auxiliary (C36/C69/ENC) • KR32D Blower Motor Medium Speed Relay - Auxiliary (C36/C69/ENC)
Circuit Breakers				
CB1	PWR SEATS	CB1PA	25A	• S64D Seat Adjuster Switch - Driver (AG1) • S64P Seat Adjuster Switch - Passenger (AG2)
CB2	PWR WINDOW(S)	CB2PA	25A	• S79D Window Switch - Driver (A31) • S79P Window Switch - Passenger (A31)
Relays				
K1	RUN	KR74 Ignition Run Relay	—	• F13PA • F14PA • F15PA • F19PA • KR77 Ignition Power Provision Relay

Usage Table (cont'd)

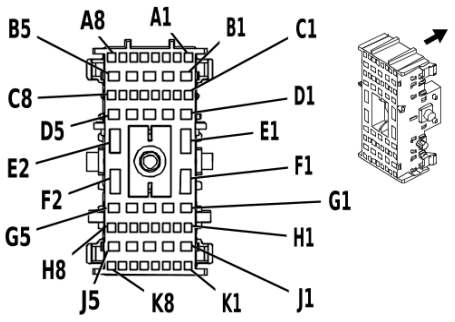
No.	Device Label Name	Device Assigned Name	Rating	Description
K2	EMPTY	KR150 Relay - Spare	—	• Not Used
K3	PRK LAMP(S)	KR53 Park Lamps Relay	—	• F3PA • F4PA • F5PA • F6PA • F7PA • F8PA
K4	UPFTR AUX2	KR77 Ignition Power Provision Relay	—	• F28PA
K5	REAR DEFOG	KR5 Rear Defogger Relay	—	• F17PA • F18PA
K6	RAP	KR76 Retained Accessory Power Relay	—	• CB2PA • F37PA • F38PA
Important: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
K7	BCK/UP	KR40 Backup Lamp Relay	—	• F26PA • F27PA
K8	UPFTR CTSY LAMP(S)	KR78 Courtesy Lamps Provision Relay	—	• F30PA
K9A	FTR REAR PASS DR UNLCK	KR90P Passenger/Cargo Door Unlock Relay	—	• F34PA • F35PA
K9B	DRVR DR UNLCK	KR92D Driver Door Unlatch Relay	—	• F36PA
K10A	FTR REAR DR LCK	KR97 Door Lock Relay	—	• F31PA • F32PA
K10B	CARGO DR UNLCK	KR90A Cargo Door Unlock Relay	—	• F33PA

X52A Fuse Block - Passenger Compartment Bottom View



2832070

X52A Fuse Block - Passenger Compartment X1



2083844

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15477823
Service Connector: 13574911
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series(L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13575753	J-35616-4A (PU)	J-38125-215A
III	19367554	J-35616-44 (YE)	J-38125-558

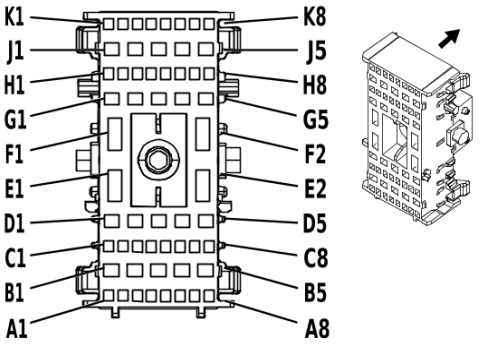
X52A Fuse Block - Passenger Compartment X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A3	—	—	—	Not Occupied	—	—
A4	0.5	YE	6817	LED Backlight Dimming Control 1	I	—
A5	0.35	BU	45	Park Lamp Relay Control	I	—
A6	0.35	BN	6136	Control	I	—
A7 - A8	—	—	—	Not Occupied	—	—
B1	0.8	RD / WH	3240	Battery Positive Voltage	II	—
B2	1	BN	2109	Trailer Park Lamp Control	II	—
B3	0.35	BN	341	Run Ignition 3 Voltage	II	—
B4	0.75	GY / BN	2309	Front Park Lamp Control	II	—
B5	1	BN	2109	Trailer Park Lamp Control	II	—
C1	1	YE	618	Left Rear Turn Signal Lamp Control	I	—
C2	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
C3	1	GN	619	Right Rear Turn Signal Lamp Control	I	—
C4	0.35	WH	193	Rear Defogger Relay Control	I	—
C5	0.35	BN	341	Run Ignition 3 Voltage	I	—
C6	—	—	—	Not Occupied	—	—
C7	0.35	OG	300	Run Ignition 3 Voltage	I	—
C8 - D3	—	—	—	Not Occupied	—	—
D4	0.5	VT / BK	1639	Run/Crank Ignition 1 Voltage	II	—

X52A Fuse Block - Passenger Compartment X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
D5	0.5 1	BU BN	6807 141	DC/AC Inverter Control Run Ignition 3 Voltage	II	— —
E1	—	—	—	Not Occupied	—	—
E2	0.8	BK	350	Ground	III	—
F1 - G2	—	—	—	Not Occupied	—	—
G3	0.8 0.5	BU / WH GY	1315 5861	Right Front Turn Signal Lamp Control Passenger Side Object Detection LED Signal 1	II II	DE5 UFT
G4	1	RD / WH	340	Battery Positive Voltage	II	—
G5	—	—	—	Not Occupied	—	—
H1	0.8 0.5	BU / WH GY / YE	1314 5853	Left Front Turn Signal Lamp Control Driver Side Side Object Detection LED Signal 1	I I	DE5 UFT
H2	0.8 1	BU / WH BU / WH	149 149	Courtesy Lamp Control Courtesy Lamp Control	I I	DE5 UFT
H3	0.35	BK / WH	351	Signal Ground	I	—
H4	0.35	YE	43	Accessory Ignition Voltage	I	—
H5	0.8	RD / WH	4440	Battery Positive Voltage	I	—
H6	0.35	RD / WH	2840	Battery Positive Voltage	I	—
H7	0.35	RD / WH	540	Battery Positive Voltage	I	—
H8	0.5	RD / WH	5340	Battery Positive Voltage	I	—
J1 - J4	—	—	—	Not Occupied	—	—
J5	1	GN	1624	Trailer Backup Lamp Control	II	—
K1	—	—	—	Not Occupied	—	—
K2	0.5	YE	356	Driver Door Lock Relay Unlock Control	I	—
K3	0.5	BU	244	Passenger Door Lock Switch Lock Control	I	—
K4	0.5	BU	244	Passenger Door Lock Switch Lock Control	I	—
K5	0.5	YE	356	Driver Door Lock Relay Unlock Control	I	—
K6 - K7	—	—	—	Not Occupied	—	—
K8	0.35	BU	38	Backup Lamp Relay Control	I	—

X52A Fuse Block - Passenger Compartment X2



1581655

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15477822
Service Connector: 19115189
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13575753	J-35616-4A (PU)	J-38125-215A
III	13575754	J-35616-4A (PU)	J-38125-215A
IV	13575756	J-35616-4A (PU)	J-38125-215A
V	19300627	J-35616-14 (GN)	J-38125-215A
VI	19367554	J-35616-44 (YE)	J-38125-558

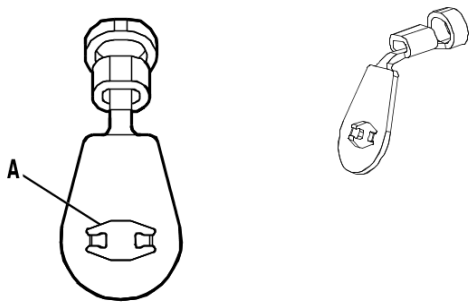
X52A Fuse Block - Passenger Compartment X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A2	—	—	—	Not Occupied	—	—
A3	0.5	RD / WH	3440	Battery Positive Voltage	V	—
A4	0.5	BN	2509	Left Rear Park Lamp Control	V	—
A5	0.5	BN	2609	Right Rear Park Lamp Control	V	—
A6	0.5 0.5	RD / GN RD / WH	3140 4340	Battery Positive Voltage Battery Positive Voltage	V	— —
A7 - A8	—	—	—	Not Occupied	—	—
B1	3	RD / WH	3540	Battery Positive Voltage	III	—
B2	3	RD / WH	3540	Battery Positive Voltage	III	—
B3	1	RD / WH	3240	Battery Positive Voltage	II	—
B4 - C1	—	—	—	Not Occupied	—	—
C2	1	RD / WH	3240	Battery Positive Voltage	I	—
C3	0.35	BN	341	Run Ignition 3 Voltage	V	—
C4	0.35	BN	341	Run Ignition 3 Voltage	V	—
C5	0.35	BN	341	Run Ignition 3 Voltage	V	—
C6	1	GN	619	Right Rear Turn Signal Lamp Control	I	—
C7	1	YE	618	Left Rear Turn Signal Lamp Control	I	—

X52A Fuse Block - Passenger Compartment X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
C8	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	V	—
D1	5	PU	293	Rear Defogger Grid Control	IV	—
D2	5	PU	293	Rear Defogger Grid Control	IV	—
D3	0.8	OG	2267	Outside Rearview Mirror Heater Control	II	—
D4	0.8	OG	2267	Outside Rearview Mirror Heater Control	II	—
D5 - E1	—	—	—	Not Occupied	—	—
E2	5	RD / BK	1042	Battery Positive Voltage	VI	—
F1	5	RD / WH	1740	Battery Positive Voltage	VI	—
F2	5	BN	541	Run Ignition 3 Voltage	VI	—
G1	3	GN	1001	Retained Accessory Power Ignition Voltage	III	—
G2	3	GN	1001	Retained Accessory Power Ignition Voltage	III	—
G3	—	—	—	Not Occupied	—	—
G4	1	GY	295	Door Lock Actuator Lock Control	II	—
G5	1	GY	295	Door Lock Actuator Lock Control	II	—
H1	—	—	—	Not Occupied	—	—
H2	0.5	BK / BN	6045	Steering Angle Sensor Low Reference	V	—
H3	0.35	BK / WH	351	Signal Ground	I	—
H4	—	—	—	Not Occupied	—	—
H5	0.5	BU / WH	1315	Right Front Turn Signal Lamp Control	V	UFT
H6	0.5	BU / WH	1314	Left Front Turn Signal Lamp Control	V	—
H7	0.5	BU / WH	149	Courtesy Lamp Control	V	—
H8	0.5 0.8 1	BU / WH BU / WH BU / WH	149 149 149	Courtesy Lamp Control Courtesy Lamp Control Courtesy Lamp Control	V I I	CARGO UPFITTER & CUTAWAT CARGO- YF2 PASSENGER
J1	0.8	TN	694	Driver Door Lock Actuator Unlock Control	II	—
J2	1	TN	294	Door Lock Actuator Unlock Control	II	—
J3	0.8	TN	294	Door Lock Actuator Unlock Control	II	—
J4	0.8	TN	294	Door Lock Actuator Unlock Control	II	—
J5	0.8	GY	295	Door Lock Actuator Lock Control	III	—
K1 - K2	—	—	—	Not Occupied	—	—
K3	1	TN / BK	1095	Right Rear Door Lock Actuator Unlock Control	I	—
K4 - K6	—	—	—	Not Occupied	—	—
K7	1	TN	294	Door Lock Actuator Unlock Control	I	—
K8	1	GN	24	Backup Lamp Control	I	—

X52A Fuse Block - Passenger Compartment X3



4831037

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12160241
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

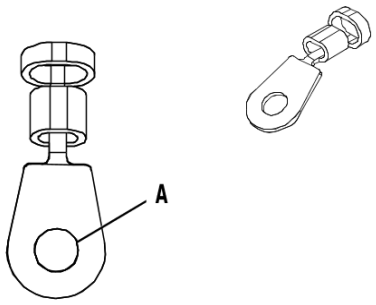
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X52A Fuse Block - Passenger Compartment X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	842	Battery Positive Voltage	I	—

X55U Fuse Holder - Starter X1 (L8T)



4329341

Connector Part Information

Harness Type: Battery Positive Cable
OEM Connector: 15491241
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

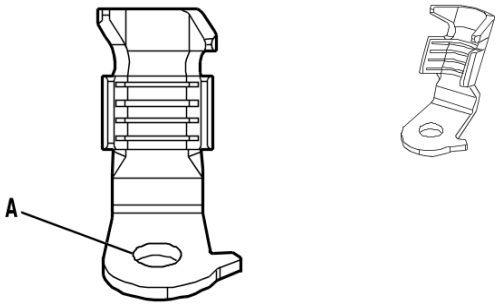
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X55U Fuse Holder - Starter X1 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

X55U Fuse Holder - Starter X1 (LV1)



4937583

Connector Part Information

Harness Type: Battery Positive Cable
OEM Connector: 35116268
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

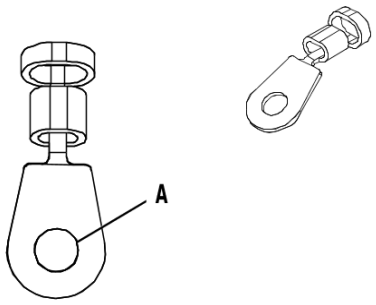
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X55U Fuse Holder - Starter X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

X55U Fuse Holder - Starter X2 (L8T)



4329341

Connector Part Information

Harness Type: Battery Positive Cable
OEM Connector: 15491241
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

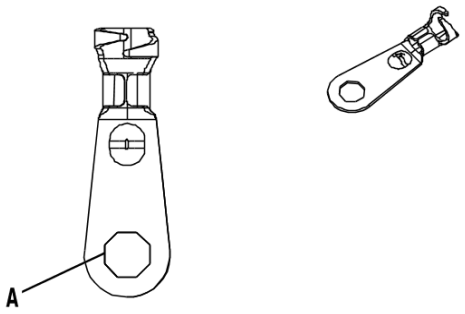
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X55U Fuse Holder - Starter X2 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

X55U Fuse Holder - Starter X2 (LV1)



3214043

Connector Part Information

Harness Type: Battery Positive Cable
OEM Connector: 33257772
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

Terminal Part Information

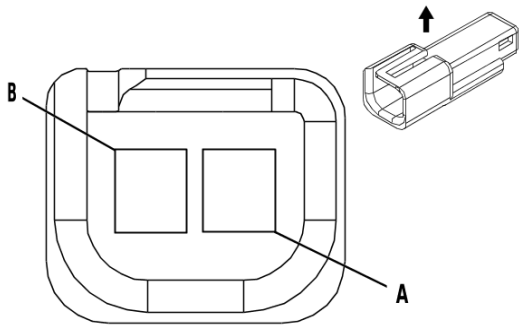
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X55U Fuse Holder - Starter X2 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	25	RD	1	Unfused Battery Positive Voltage	I	—

Component Connector End Views

A3L Sunshade - Left



35441

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series(BK)

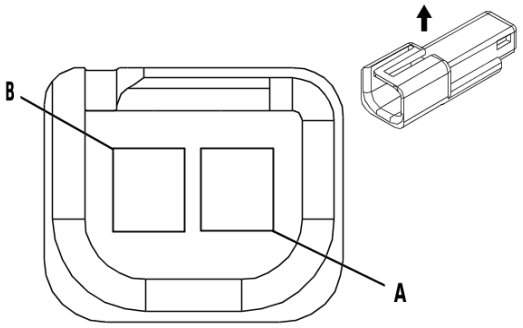
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

A3L Sunshade - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	OG	1732	Control Module 12V Reference 3	I	—
B	—	BK	1850	Ground	I	—

A3R Sunshade - Right



35441

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

A3R Sunshade - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	OG	1732	Control Module 12V Reference 3	I	—
B	0.5	BK	1850	Ground	I	—

A7 Fuel Pump and Level Sensor Assembly

—

Connector Part Information

Harness Type: Fuel Tank Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

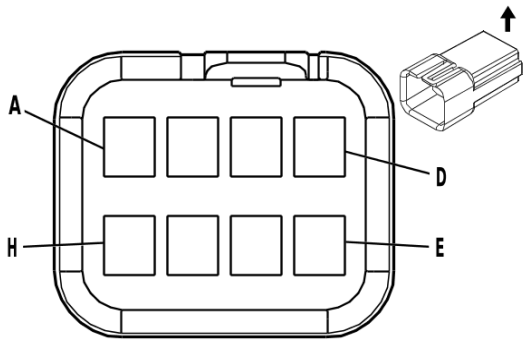
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A7 Fuel Pump and Level Sensor Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY	120	Fuel Pump Control	I	—
2	—	YE / GY	4137	Fuel Pump Supply Voltage Phase 2	I	—
3	—	WH / BN	4138	Fuel Pump Supply Voltage Phase 3	I	—
4	—	BK / GN	6281	Fuel Level Sensor Low Reference	I	—
5	—	BU / VT	1589	Primary Fuel Level Sensor Signal	I	—

A9A Outside Rearview Mirror - Driver



62434

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 12065396
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 Metri-Pack Series(NA)

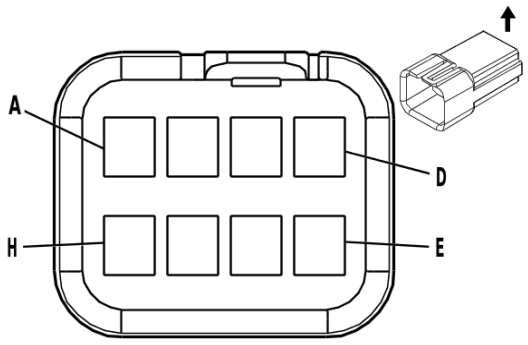
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

A9A Outside Rearview Mirror - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	450	Ground	I	—
B	0.5	BU / WH	1314	Left Front Turn Signal Lamp Control	I	—
C	0.8	OG	2267	Outside Rearview Mirror Heater Control	I	—
D	0.5	BK	450	Ground	I	—
E	0.35	YE	88	Left Outside Rearview Mirror Motor Up Control	I	—
F	0.35	GN	89	Left Outside Rearview Mirror Motor Down Control	I	—
G	0.35	WH	81	Left Outside Rearview Mirror Motor Right Control	I	—
H	0.35	YE	88	Left Outside Rearview Mirror Motor Up Control	I	—

A9B Outside Rearview Mirror - Passenger



62434

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 12162427
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 Metri-Pack Series(NA)

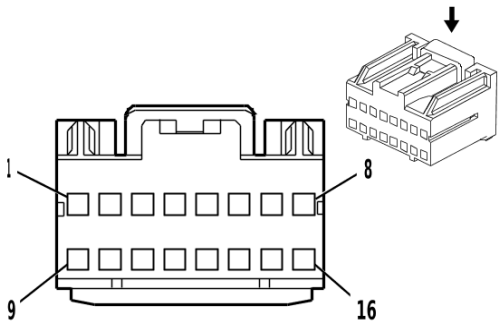
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

A9B Outside Rearview Mirror - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	1850	Ground	I	—
B	0.5	BU / WH	1315	Right Front Turn Signal Lamp Control	I	—
C	0.8	OG	2267	Outside Rearview Mirror Heater Control	I	—
D	0.5	BK	1850	Ground	I	—
E	0.35	BN / WH	1498	Right Outside Rearview Mirror Motor Up Control	I	—
F	0.35	PU / WH	889	Right Outside Rearview Mirror Motor Down Control	I	—
G	0.35	OG / WH	881	Right Outside Rearview Mirror Motor Right Control	I	—
H	0.35	BN / WH	1498	Right Outside Rearview Mirror Motor Up Control	I	—

A10 Inside Rearview Mirror (- (UEU / UFL))



1711009

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 15441350
Service Connector: 15306351
Description: 16-Way F 100A Micro-Pack Series(BK)

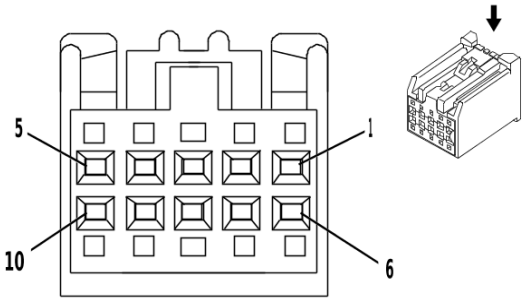
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575546	J-35616-16 (L-GN)	J-38125-559

A10 Inside Rearview Mirror (- (UEU / UFL))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 5	—	—	—	Not Occupied	—	—
6	0.5	WH	7641	Frontview Camera 2 Signal [+]	I	—
7	0.5	BU	7642	Frontview Camera 2 Signal [-]	I	—
8	0.5	BK / WH	351	Signal Ground	I	—
9	0.5	GN	24	Backup Lamp Control	I	—
10 - 12	—	—	—	Not Occupied	—	—
13	0.5	PK	239	Run/Crank Ignition 1 Voltage	I	—
14 - 16	—	—	—	Not Occupied	—	—

A10 Inside Rearview Mirror ((UEU / UFL))



2180211

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: AIT2PB-10P-2AK
Service Connector: 13577390
Description: 10-Way F 0.64 Kaizen Series(BK)

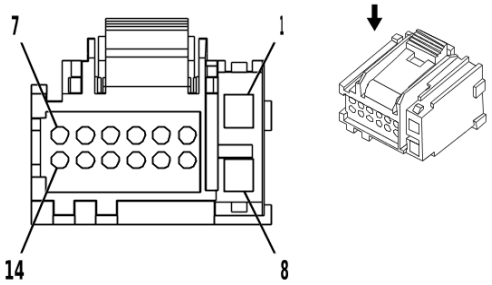
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (L-BU)	J-38125-215A

A10 Inside Rearview Mirror ((UEU / UFL))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / WH	24	Backup Lamp Control	I	—
2	0.5	VT / WH	239	Run/Crank Ignition 1 Voltage	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	BK / WH	351	Signal Ground	I	—
6	0.5	BU	7641	Frontview Camera 2 Signal [+]	I	—
7	0.5	WH	7642	Frontview Camera 2 Signal [-]	I	—
8 - 10	—	—	—	Not Occupied	—	—

A11 Radio X1



2684742

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13545675
Service Connector: 13580448
Description: 14-Way F 0.64 Micro-Pack, 150 GT Series(BK)

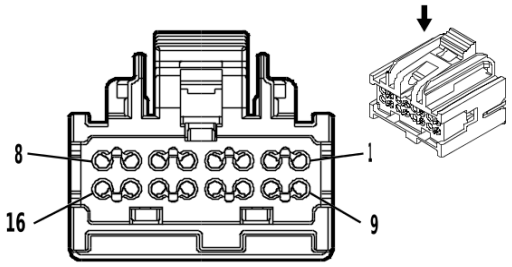
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13579976	J-35616-64B (L-BU)	J-38125-21
III	19370337	J-35616-64B (L-BU)	J-38125-21

A11 Radio X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	RD / WH	340	Battery Positive Voltage	I	—
2	0.8	BU	1857	Left Front Midrange Speaker [+] Control	II	—
3	0.8	OG	1853	Right Front Midrange Speaker [+] Control	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.35	YE	6817	LED Backlight Dimming Control 1	III	—
8	1	BK / WH	351	Signal Ground	I	—
9	0.8	BU	1957	Left Front Midrange Speaker [-] Control	II	—
10	0.8	GN	1953	Right Front Midrange Speaker [-] Control	II	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.35	GN	5060	Low Speed GMLAN Serial Data	III	—
14	—	—	—	Not Occupied	—	—

A11 Radio X2



2127936

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13567860
Service Connector: 13504130
Description: 16-Way F 64 Micro-Series(PU)

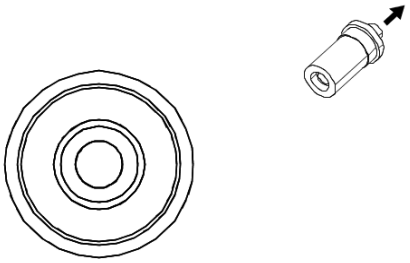
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579976	J-35616-64B (L-BU)	J-38125-21
II	19370337	J-35616-64B (L-BU)	J-38125-21

A11 Radio X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / WH	367	Secondary Radio Receiver Left Audio Signal	II	—
2	0.35	GN / WH	368	Secondary Radio Receiver Right Audio Signal 1	II	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.8	TN	1859	Left Rear Midrange Speaker [+] Control	I	—
6	0.8	TN	1855	Right Rear Midrange Speaker [+] Control	I	—
7	0.8	BU	658	Cellular Telephone Voice Signal	I	—
8	—	—	—	Not Occupied	—	—
9	0.35	TN / WH	372	Secondary Radio Receiver Audio [-] Control	II	—
10	0.35	GY	388	Secondary Radio Receiver Right Audio Signal 2	II	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.8	WH	1959	Left Rear Midrange Speaker [-] Control	I	—
14	0.8	OG	1955	Right Rear Midrange Speaker [-] Control	I	—
15	0.8	BU / BK	659	Cellular Telephone Voice Low Reference	I	—
16	—	—	—	Not Occupied	—	—

A11 Radio X3



3264028

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX
OEM Connector: 1438810-1
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Snap Lock Coax Type(BK)

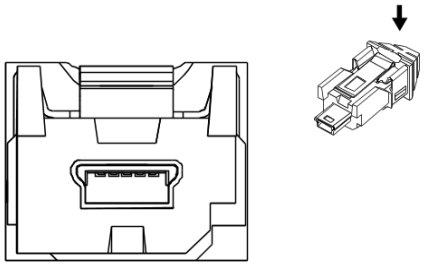
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(AM/FM) Antenna RF Signal	I	—

A11 Radio X6



2791449

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB
OEM Connector: 13668059
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(BK)

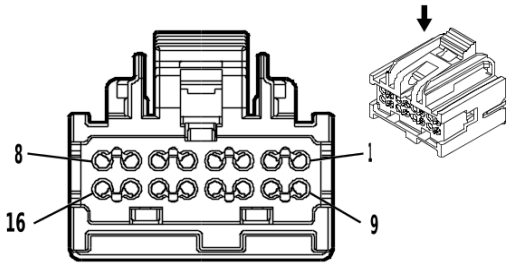
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

A12 Digital Radio Receiver Control Module X1



2127936

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13568238
Service Connector: 13504130
Description: 16-Way F 64 Micro-Series(BK)

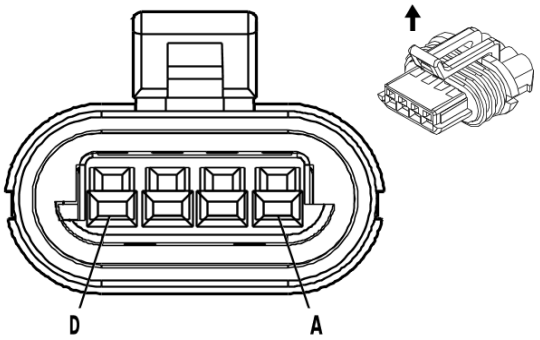
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579976	J-35616-64B (L-BU)	J-38125-21
II	19370337	J-35616-64B (L-BU)	J-38125-21

A12 Digital Radio Receiver Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	TN / WH	372	Secondary Radio Receiver Audio [-] Control	II	—
2	0.35	BN / WH	367	Secondary Radio Receiver Left Audio Signal	II	—
3	0.35	GN / WH	368	Secondary Radio Receiver Right Audio Signal 1	II	—
4	0.35	GY	388	Secondary Radio Receiver Right Audio Signal 2	II	—
5	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
6 - 8	—	—	—	Not Occupied	—	—
9	0.8	BK / WH	351	Signal Ground	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	Bare	1573	Front Audio Low Reference	II	—
12 - 15	—	—	—	Not Occupied	—	—
16	0.8	RD / WH	340	Battery Positive Voltage	I	—

A23D Door Latch Assembly - Driver X1



684948

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 15354716
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed(BK)

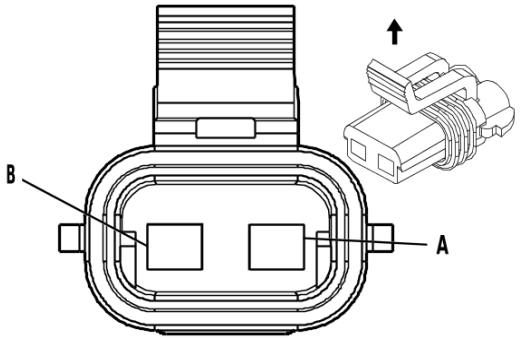
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

A23D Door Latch Assembly - Driver X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	TN	126	Left Front Door Open Switch Signal	I	—
B	0.35	GY / BK	745	Left Front Door Ajar Switch Signal	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	BK	450	Ground	I	—

A23D Door Latch Assembly - Driver X2



68721

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

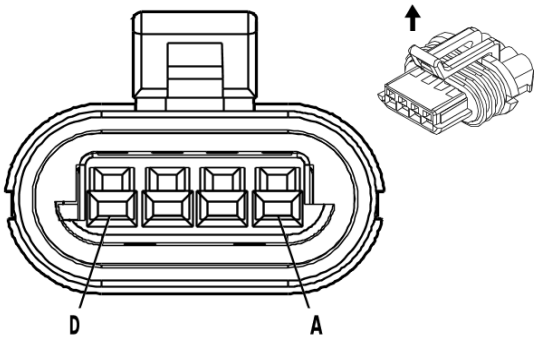
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

A23D Door Latch Assembly - Driver X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	694	Driver Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

A23P Door Latch Assembly - Passenger X1



684948

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 15354716
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed(BK)

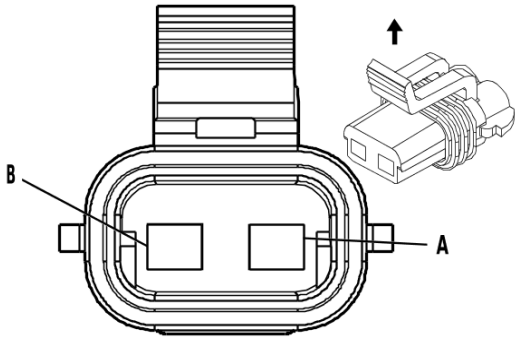
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

A23P Door Latch Assembly - Passenger X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground	I	—
B	—	—	—	Not Occupied	—	—
C	0.35	TN / WH	746	Right Front Door Ajar Switch Signal	I	—
D	0.35	GN	1177	Right Front Door Open Switch Signal	I	—

A23P Door Latch Assembly - Passenger X2



68721

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

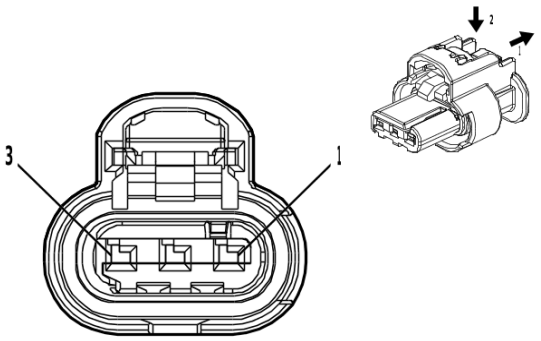
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

A23P Door Latch Assembly - Passenger X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

B1 A/C Refrigerant Pressure Sensor



4581126

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: 86792094
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

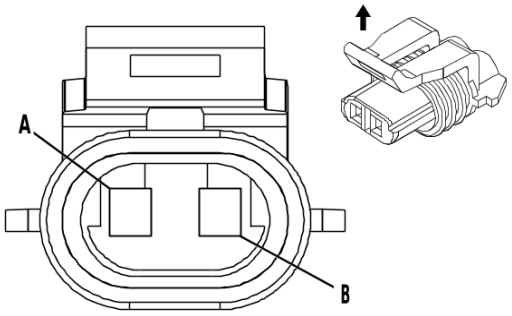
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B1 A/C Refrigerant Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
2	0.5	GN	380	Air Conditioning Refrigerant Pressure Sensor Signal	I	—
3	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference 1	I	—

B1B A/C Low Side Pressure Switch



537107

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed(GY)

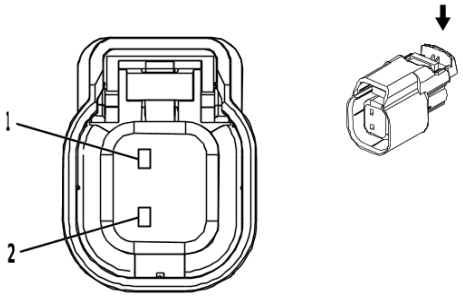
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B1B A/C Low Side Pressure Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN	66	Air Conditioning Request Signal	I	—
B	0.5	BN / WH	66	Air Conditioning Request Signal	I	—

B5LF Wheel Speed Sensor - Left Front



2792100

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34062-0027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

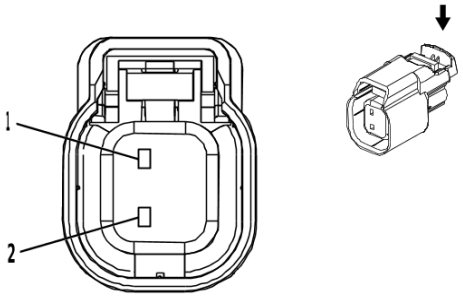
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5LF Wheel Speed Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / WH	7064	Left Front Wheel Speed Sensor Control	I	—
2	0.5	GY	830	Left Front Wheel Speed Sensor Signal	I	—

B5LR Wheel Speed Sensor - Left Rear



2792100

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34062-0027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

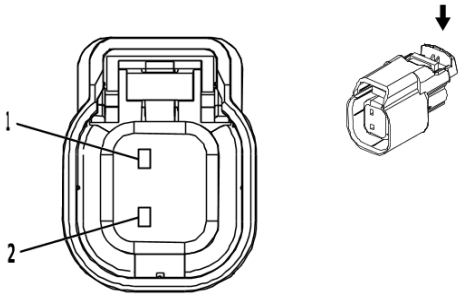
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5LR Wheel Speed Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BK	7127	Left Rear Wheel Speed Sensor Control	I	—
2	0.5	BU	884	Left Rear Wheel Speed Sensor Signal	I	—

B5RF Wheel Speed Sensor - Right Front



2792100

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34062-0027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

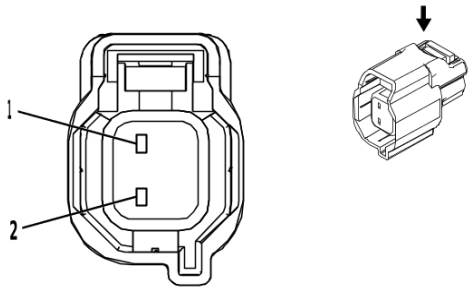
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5RF Wheel Speed Sensor - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BN	7065	Right Front Wheel Speed Sensor Control	I	—
2	0.5	YE	872	Right Front Wheel Speed Sensor Signal	I	—

B5RR Wheel Speed Sensor - Right Rear (- R04)



2900396

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34062-0026
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(L-GY)

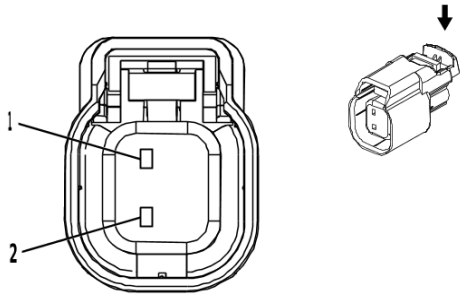
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5RR Wheel Speed Sensor - Right Rear (- R04)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / YE	7128	Right Rear Wheel Speed Sensor Control	I	—
2	0.5	VT	882	Right Rear Wheel Speed Sensor Signal	I	—

B5RR Wheel Speed Sensor - Right Rear (R04)



2792100

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34062-0027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

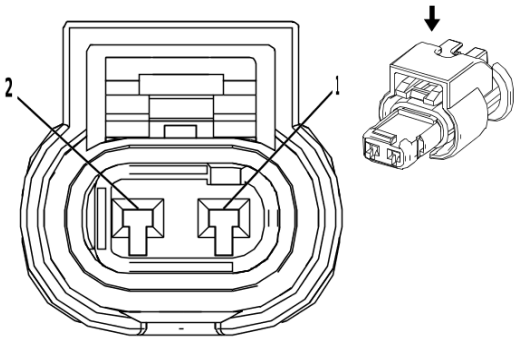
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5RR Wheel Speed Sensor - Right Rear (R04)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / YE	7128	Right Rear Wheel Speed Sensor Control	I	—
2	0.5	VT	882	Right Rear Wheel Speed Sensor Signal	I	—

B9 Ambient Air Temperature Sensor (LV1 / L8T)



2474752

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 13586143
Service Connector: 85519075
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

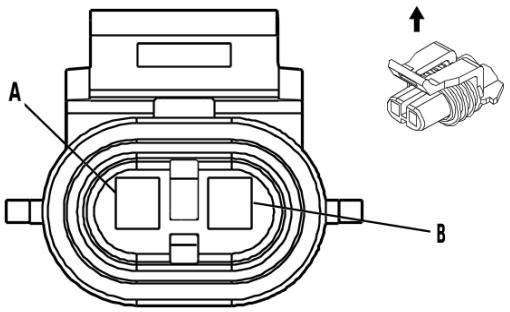
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B9 Ambient Air Temperature Sensor (LV1 / L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BU / GY	636	Ambient Air Temperature Sensor Signal	I	—
2	—	BK / GN	580	Engine Control Sensors Low Reference 2	I	—

B9 Ambient Air Temperature Sensor (UFA)



684793

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 12052642
Service Connector: 12101856
Description: 2-Way F 150 Metri-Pack Series, Sealed(L-GN)

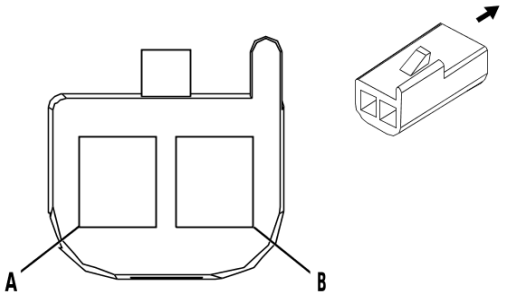
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B9 Ambient Air Temperature Sensor (UFA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU / GY	636	Ambient Air Temperature Sensor Signal	I	—
B	0.5	BK / BU	61	Ambient Air Temperature Sensor Low Reference	I	—

B10 Ambient Light Sensor



82383

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series(BK)

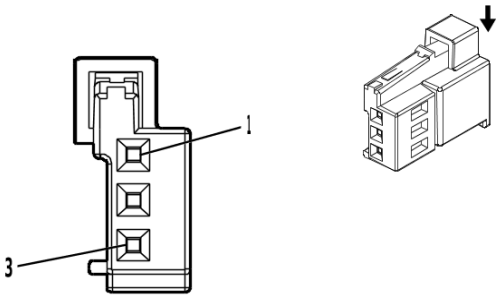
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B10 Ambient Light Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	WH	278	Ambient Light Sensor Signal	I	—
B	0.35	BK / WH	351	Signal Ground	I	—

B12B Transmission Fluid Pressure Sensor



4829276

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 2293842-1
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series(BU)

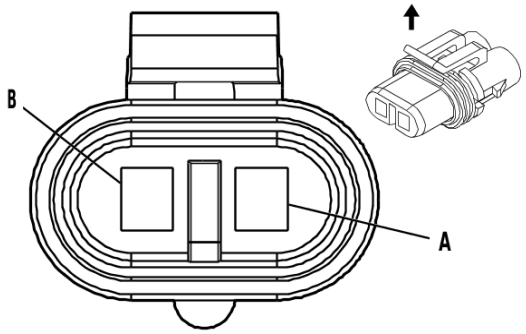
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B12B Transmission Fluid Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GN	10817	Lubricant Circuit Pressure Sensor 5 Volt Reference	I	—
2	—	GN / BK	10819	Lubricant Circuit Pressure Sensor Low Reference	I	—
3	—	BU / YE	10816	Lubricant Circuit Pressure Sensor Signal	I	—

B19A Brake Booster Fluid Pressure Alarm Switch



646148

Connector Part Information

Harness Type: Brake Fluid Level Indicator Wiring Harness
OEM Connector: 12020599
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

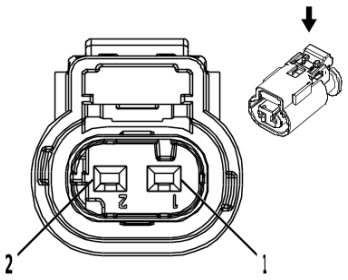
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

B19A Brake Booster Fluid Pressure Alarm Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	TN / WH	33	Brake Warning Indicator Control	I	—
B	0.5	BU / BK	1928	Brake Booster Fluid Flow Alarm Switch Signal	I	—

B20 Brake Fluid Level Switch



2717066

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010337
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

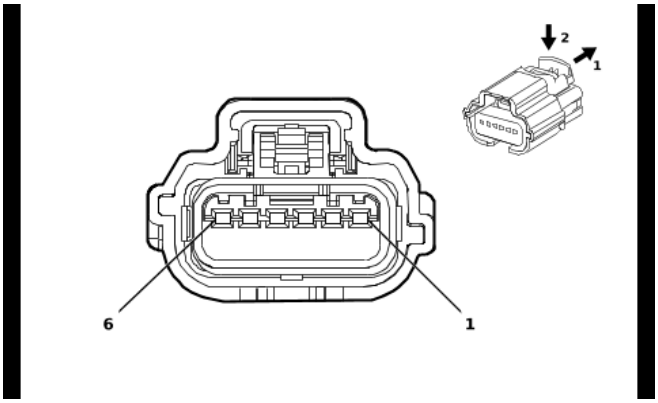
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B20 Brake Fluid Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK / WH	1551	Signal Ground	I	—
2	0.75	GN / GY	333	Brake Fluid Level Signal	I	—

B22 Brake Pedal Position Sensor



4773396

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 31404-7810
Service Connector: 84683650
Description: 6-Way F 64 Series, Sealed(NA)

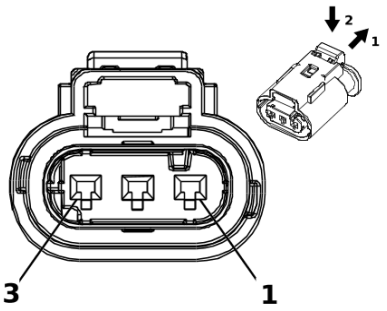
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B22 Brake Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / WH	5382	Brake Position Sensor Low Reference	I	—
2	0.5	GY	5381	Brake Position Sensor 5V Reference	I	—
3	0.5	TN	5380	Brake Position Sensor Signal	I	—
4	0.5	YE	5361	Brake Apply Sensor Signal	I	—
5	0.5	BN	5360	Brake Apply Sensor Low Reference	I	—
6	0.5	WH	5359	Brake Apply Sensor Control	I	—

B23 Camshaft Position Sensor



2717069

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper Wiring Harness
OEM Connector: 13503570
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

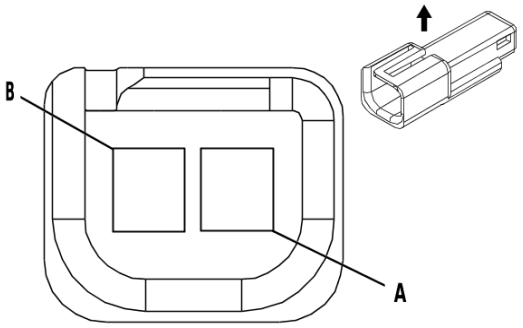
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B23 Camshaft Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY / BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	I	—
2	—	BK / GN	5301	Intake Camshaft Position Sensor Low Reference 1	I	—
3	—	YE / VT	5275	Intake Camshaft Position Sensor 1	I	—

B24 Mobile Telephone Microphone (UE1)



35441

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series(BK)

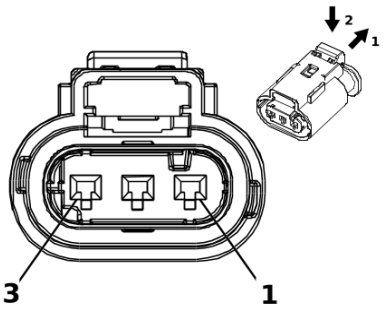
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

B24 Mobile Telephone Microphone (UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	GN	654	Cellular Telephone Microphone Low Reference	I	—
B	0.8	GY	655	Cellular Telephone Microphone Signal	I	—

B26 Crankshaft Position Sensor



2717069

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010341
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

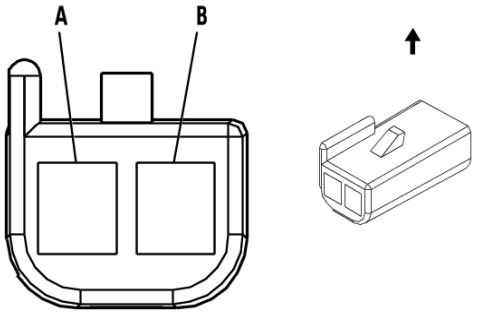
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B26 Crankshaft Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	6271	Crankshaft Position Sensor Signal	I	—
2	0.5	BK / VT	6272	Crankshaft Position Sensor Low Reference	I	—
3	0.5	VT / BU	6270	Crankshaft Position Sensor Voltage	I	—

B28F Door Ajar Switch - Right Sliding



35451

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12059251
Service Connector: 12101848
Description: 2-Way F 150 Metri-Pack Series(RD)

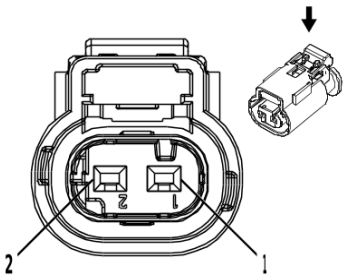
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B28F Door Ajar Switch - Right Sliding

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground	I	—
B	0.35	YE / BK	1181	Right Rear Door Open Switch Signal	I	—

B34 Engine Coolant Temperature Sensor (L8T)



2717066

Connector Part Information

Harness Type: Engine Coolant Temperature Sensor Wiring Harness
OEM Connector: 13503566
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

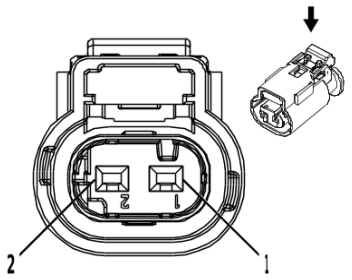
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B34 Engine Coolant Temperature Sensor (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BU	410	Engine Coolant Temperature Sensor Signal	I	—
2	—	BK / YE	548	Engine Control Sensors Low Reference 1	I	—

B34 Engine Coolant Temperature Sensor (LV1)



2717066

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010337
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

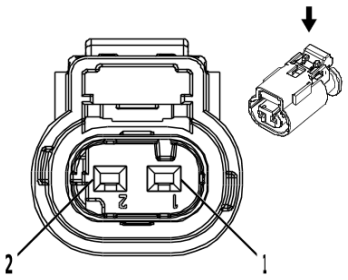
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B34 Engine Coolant Temperature Sensor (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	410	Engine Coolant Temperature Sensor Signal	I	—
2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—

B35 Engine Oil Level Switch (L8T)



2717066

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010337
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

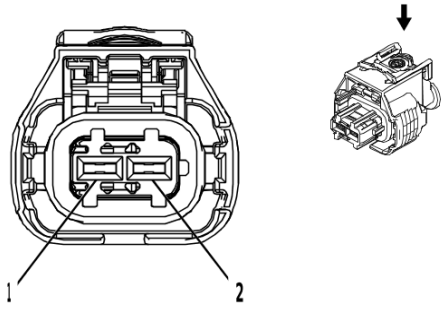
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B35 Engine Oil Level Switch (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / GN	1174	Oil Level Switch Signal	I	—
2	0.75	BK / WH	1551	Signal Ground	I	—

B35 Engine Oil Level Switch (LV1)



2577394

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1 928 405 714
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed(BK)

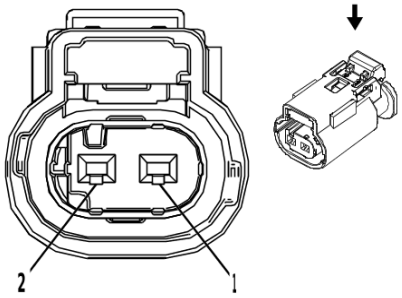
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

B35 Engine Oil Level Switch (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / GN	1174	Oil Level Switch Signal	I	—
2	0.75	BK / WH	1551	Signal Ground	I	—

B36 Engine Oil Temperature Sensor (L8T)



2830969

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010339
Service Connector: 13587321
Description: 2-Way F 1.2 Multilock Series, Sealed(D-GY)

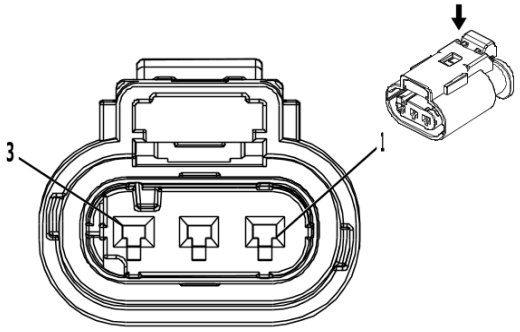
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B36 Engine Oil Temperature Sensor (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / BU	357	Oil Temperature Sensor Signal	I	—
2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—

B37B Engine Oil Pressure Sensor



3240107

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010344
Service Connector: 19301717
Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

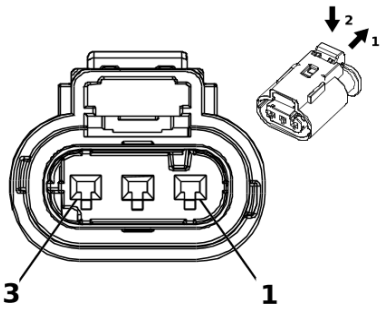
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B37B Engine Oil Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / BN	331	Oil Pressure Sensor Signal	I	—
2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
3	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—

B47 Fuel Pressure Sensor



2717069

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 10010341
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

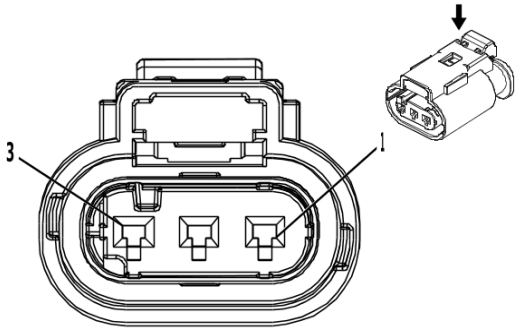
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B47 Fuel Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / RD	7445	Fuel Line Pressure Sensor 5V Reference	I	—
2	0.5	BK / YE	7447	Fuel Pressure Sensor Low Reference	I	—
3	0.5	BU / WH	7446	Fuel Pressure Sensor Signal	I	—

B47B Fuel Rail Pressure Sensor



3240107

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 172007659
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

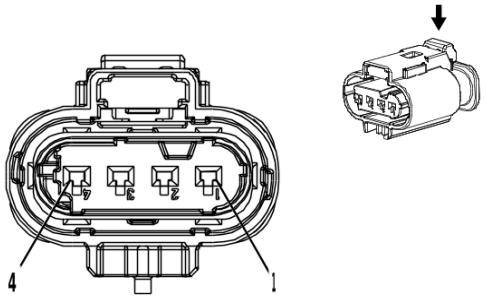
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B47B Fuel Rail Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
2	0.5	BU / WH	10786	Fuel Rail Pressure Sensor SENT 1 Signal	I	—
3	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—

B52C Heated Oxygen Sensor - Bank 1 Sensor 1



4381050

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10021267
Service Connector: 19354075
Description: 4-Way F 1.2 Multilock Series, Sealed(GY)

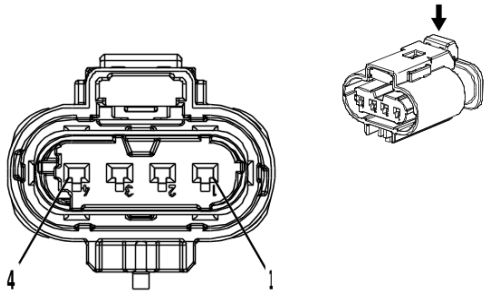
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B52C Heated Oxygen Sensor - Bank 1 Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / WH	3113	HO2S Heater Low Control Bank 1 Sensor 1	I	—
2	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
3	0.5	WH / BK	3111	HO2S Low Signal Bank 1 Sensor 1	I	—
4	0.5	VT / GY	3110	HO2S High Signal Bank 1 Sensor 1	I	—

B52D Heated Oxygen Sensor - Bank 1 Sensor 2



4036370

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10021266
Service Connector: 19330920
Description: 4-Way F 1.2 Multilock Series, Sealed(GY)

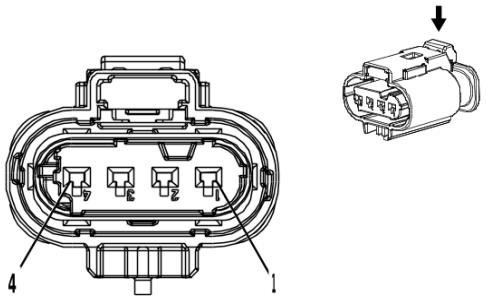
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B52D Heated Oxygen Sensor - Bank 1 Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / WH	3122	HO2S Heater Low Control Bank 1 Sensor 2	I	—
2	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	I	—
3	0.5	WH / YE	3121	HO2S Low Signal Bank 1 Sensor 2	I	—
4	0.5	VT / BU	3120	HO2S High Signal Bank 1 Sensor 2	I	—

B52E Heated Oxygen Sensor - Bank 2 Sensor 1



4381050

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10021267
Service Connector: 19354075
Description: 4-Way F 1.2 Multilock Series, Sealed(GY)

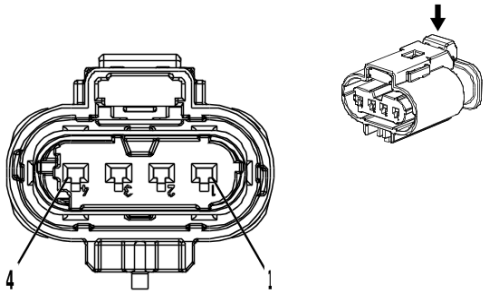
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B52E Heated Oxygen Sensor - Bank 2 Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / YE	3212	HO2S Heater Low Control Bank 2 Sensor 1	I	—
2	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
3	0.5	YE / WH	3211	HO2S Low Signal Bank 2 Sensor 1	I	—
4	0.5	VT / WH	3210	HO2S High Signal Bank 2 Sensor 1	I	—

B52F Heated Oxygen Sensor - Bank 2 Sensor 2



4036370

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10021266
Service Connector: 19330920
Description: 4-Way F 1.2 Multilock Series, Sealed(GY)

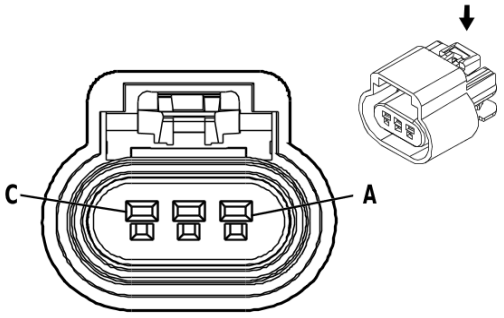
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B52F Heated Oxygen Sensor - Bank 2 Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BN	3223	HO2S Heater Low Control Bank 2 Sensor 2	I	—
2	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	I	—
3	0.5	YE / BU	3221	HO2S Low Signal Bank 2 Sensor 2	I	—
4	0.5	VT / GN	3220	HO2S High Signal Bank 2 Sensor 2	I	—

B55 Engine Hood Switch (BTV)



646415

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 13519047
Service Connector: 19368886
Description: 3-Way F 150 GT Series, Sealed(BK)

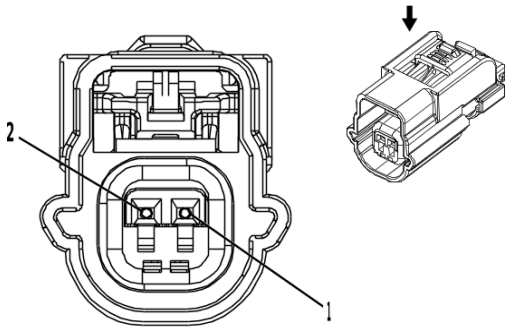
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

B55 Engine Hood Switch (BTV)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN / GN	109	Hood Ajar Switch Signal	I	—
B	0.5	BK / BN	5531	Hood Closed Switch Signal	I	—
C	0.5	BK	250	Ground	I	—

B59 Front Impact Sensor



3556418

Connector Part Information

Harness Type: Front Seat Wiring Harness
OEM Connector: 13593078
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed(GY)

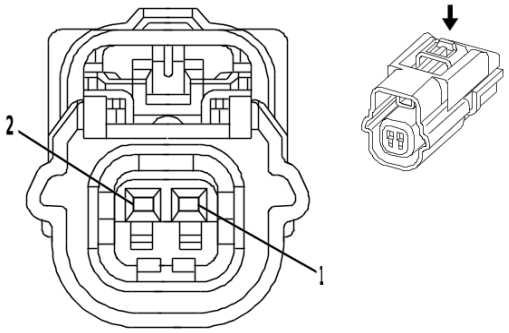
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B59 Front Impact Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / WH	6618	Front Middle Impact Discriminating Sensor Signal	I	—
2	0.5	BU / WH	6619	Front Middle Impact Discriminating Sensor Low Reference	I	—

B63LF Side Impact Sensor - Left Front (ASF)



1664592

Connector Part Information

Harness Type: Airbag Wiring Harness
OEM Connector: 54390239
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Kaizen Series, Sealed(BK)

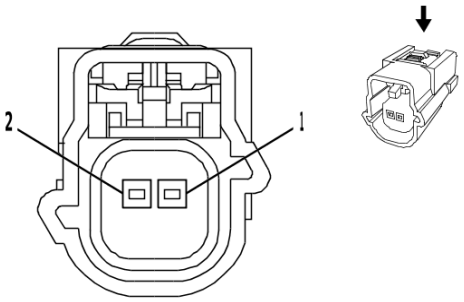
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63LF Side Impact Sensor - Left Front (ASF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	2132	Left Front Side Impact Sensor Signal	I	—
2	0.5	PU / WH	6628	Left Front Side Impact Sensor Low Reference	I	—

B63LR Side Impact Sensor - Left Rear (ASF)



2179777

Connector Part Information

Harness Type: Airbag Wiring Harness
OEM Connector: 54390242
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed(GY)

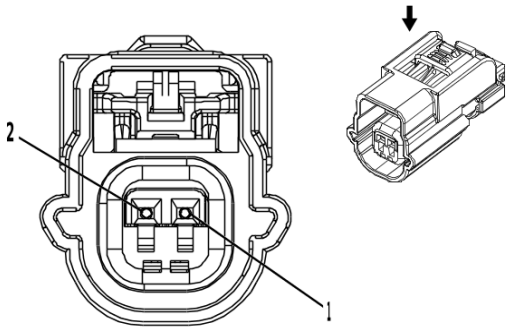
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63LR Side Impact Sensor - Left Rear (ASF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / WH	6620	Left Middle Side Impact Sensor Signal	I	—
2	0.5	GY / BK	6621	Left Middle Side Impact Sensor Low Reference	I	—

B63RF Side Impact Sensor - Right Front (ASF)



3556418

Connector Part Information

Harness Type: Side Impact Sensor - Right Front Jumper
OEM Connector: 89047492
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed(GY)

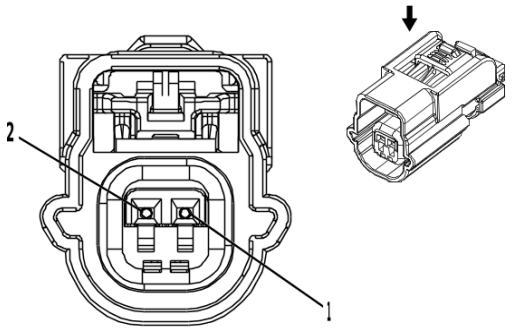
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63RF Side Impact Sensor - Right Front (ASF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GN	2134	Right Front Side Impact Sensor Signal	I	—
2	—	WH / BK	6629	Right Front Side Impact Sensor Low Reference	I	—

B63RR Side Impact Sensor - Right Rear (E24)



3556418

Connector Part Information

Harness Type: Airbag Wiring Harness
OEM Connector: 54390240
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed(GY)

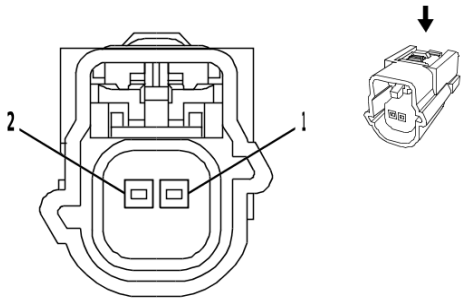
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63RR Side Impact Sensor - Right Rear (E24)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / BK	6624	Right Middle Side Impact Sensor Signal	I	—
2	0.5	GN / WH	6625	Right Middle Side Impact Sensor Low Reference	I	—

B63RR Side Impact Sensor - Right Rear (YA2)



2179777

Connector Part Information

Harness Type: Airbag Wiring Harness
OEM Connector: 13610095
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed(GY)

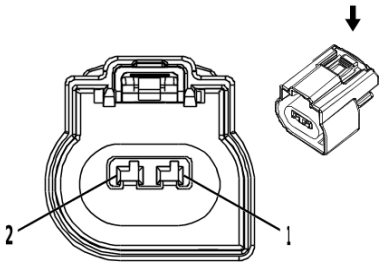
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63RR Side Impact Sensor - Right Rear (YA2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / BK	6624	Right Middle Side Impact Sensor Signal	I	—
2	0.5	GN / WH	6625	Right Middle Side Impact Sensor Low Reference	I	—

B68A Knock Sensor 1



2717073

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34752-0204
Service Connector: 19301207
Description: 2-Way F 1.5 MX Series, Sealed(BK)

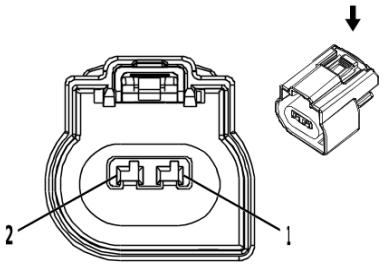
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required

B68A Knock Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT / GY	496	Knock Sensor 1 Signal	II	L8T
	0.75	VT / GY	496	Knock Sensor 1 Signal	I	LV1
2	0.75	BK / YE	1716	Knock Sensor Low Reference 1	II	L8T
	0.75	BK / YE	1716	Knock Sensor Low Reference 1	I	LV1

B68B Knock Sensor 2



2717073

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34752-0204
Service Connector: 19301207
Description: 2-Way F 1.5 MX Series, Sealed(BK)

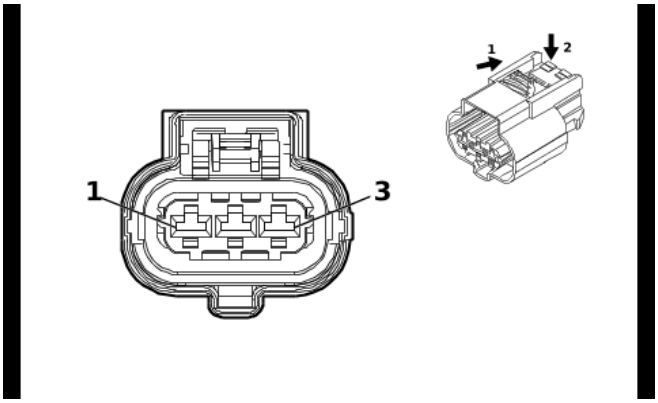
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required

B68B Knock Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH / GY	1876	Knock Sensor 2 Signal	II	L8T
	0.75	WH / GY	1876	Knock Sensor 2 Signal	I	LV1
2	0.75	BK / GY	2303	Knock Sensor Low Reference 2	II	L8T
	0.75	BK / GY	2303	Knock Sensor Low Reference 2	I	LV1

B74 Manifold Absolute Pressure Sensor



4900977

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 35133579
Service Connector: 84815530
Description: 3-Way F 2.8 CTS Series, Sealed(BK)

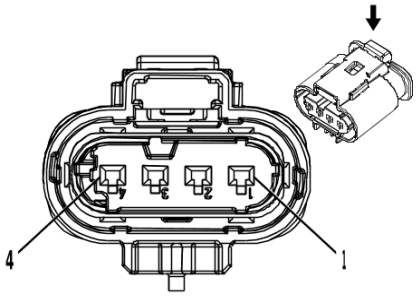
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

B74 Manifold Absolute Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
2	0.5	BK / GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
3	0.5	GN / WH	432	Manifold Absolute Pressure Sensor Signal	I	—

B75C Multifunction Intake Air Sensor



2717096

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010347
Service Connector: 13587298
Description: 4-Way F 1.2 Multilock Series, Sealed(L-GY)

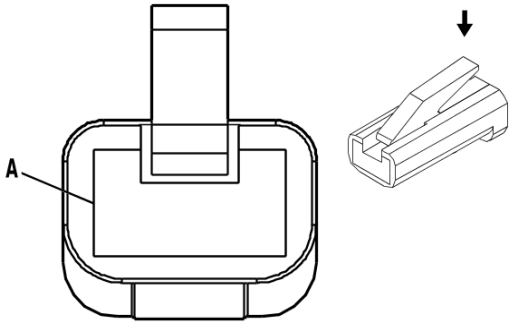
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B75C Multifunction Intake Air Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	I	—
2	0.5	GN / WH	492	Mass Air Flow Sensor Signal	I	—
3	0.5	GN / WH	4622	Engine Control Module LIN Bus 2	I	—
4	0.75	BK / WH	1551	Signal Ground	I	—

B80 Park Brake Switch



35348

Connector Part Information

Harness Type: Park Brake Switch Jumper
OEM Connector: 12004267
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 5.6 Series(BK)

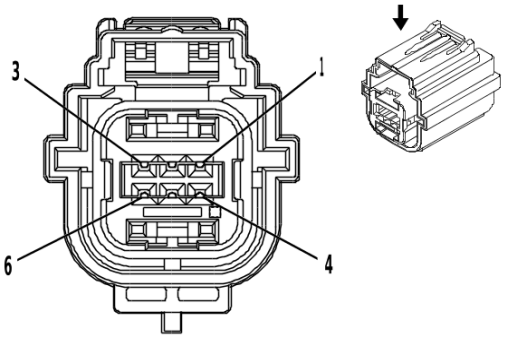
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B80 Park Brake Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BU	1134	Park Brake Switch Signal	I	—

B87 Rearview Camera (UVC)



2133378

Connector Part Information

Harness Type: Rear Door Door Wiring Harness
OEM Connector: 1924211-1
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Series, Sealed(GY)

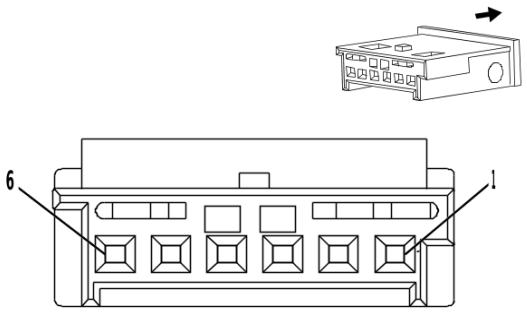
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B87 Rearview Camera (UVC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	7641	Frontview Camera 2 Signal [+]	I	—
2	0.5	Bare	6799	Camera Shield Ground	I	—
3	0.5	GN	24	Backup Lamp Control	I	—
4	0.5	BU	7642	Frontview Camera 2 Signal [-]	I	—
5	0.5	BK / WH	351	Signal Ground	I	—
6	0.5	PK	239	Run/Crank Ignition 1 Voltage	I	—

B99 Steering Wheel Angle Sensor



1862024

Connector Part Information

Harness Type: Steering Column
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way

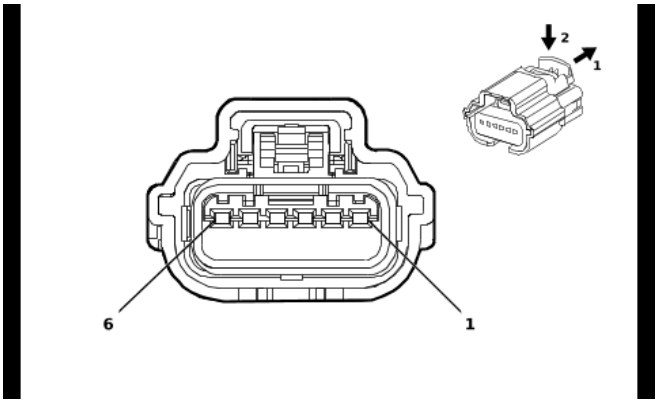
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B99 Steering Wheel Angle Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
2	—	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
3	—	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	I	—
4	—	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	I	—
5	—	GN / BN	2087	Multi-axis Acceleration Sensor Supply Voltage	I	—
6	—	BK / WH	351	Signal Ground	I	—

B107 Accelerator Pedal Position Sensor



5157678

Connector Part Information

Harness Type: Accelerator Control Wiring Harness
OEM Connector: 35199156
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 64 Series, Sealed(BK)

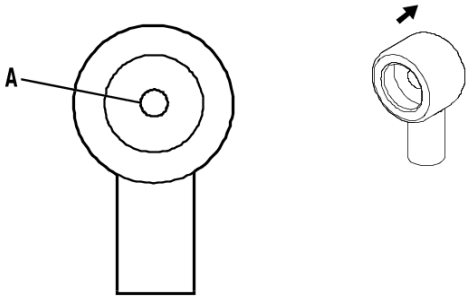
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B107 Accelerator Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / RD	1164	Accelerator Pedal Position 5V Reference 1	I	—
2	0.35	YE / WH	1161	Accelerator Pedal Position Signal 1	I	—
3	0.35	BK / BU	1271	Accelerator Pedal Position Low Reference 1	I	—
4	0.35	BK / VT	1272	Accelerator Pedal Position Low Reference 2	I	—
5	0.35	GN / WH	1162	Accelerator Pedal Position Signal 2	I	—
6	0.35	BN / RD	1274	Accelerator Pedal Position 5V Reference 2	I	—

B133 Brake Booster Fluid Flow Alarm Switch X1



2004808

Connector Part Information

Harness Type: Brake Fluid Level Indicator Wiring Harness
OEM Connector: 6288440
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F Grip Series(BK)

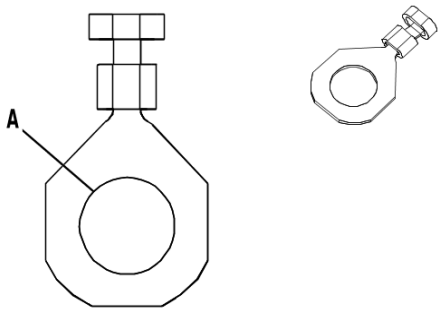
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

B133 Brake Booster Fluid Flow Alarm Switch X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU / BK	1928	Brake Booster Fluid Flow Alarm Switch Signal	I	—

B133 Brake Booster Fluid Flow Alarm Switch X2



3240148

Connector Part Information

Harness Type: Brake Fluid Level Indicator Wiring Harness
OEM Connector: 12103516
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

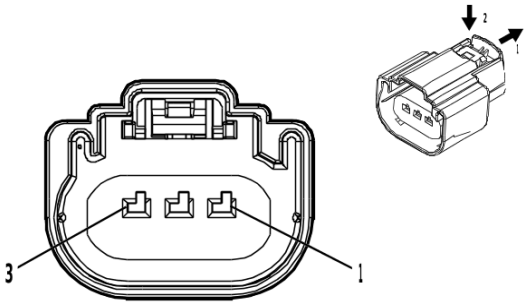
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B133 Brake Booster Fluid Flow Alarm Switch X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK	350	Ground	I	—

B150 Fuel Tank Pressure Sensor



4589538

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 160073-3106
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.5 MX Series, Sealed(GY)

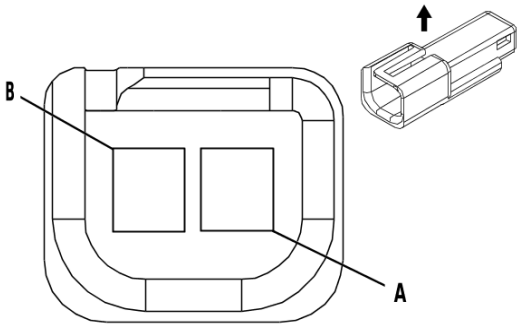
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B150 Fuel Tank Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / WH	890	Fuel Tank Pressure Sensor Signal	I	—
2	0.5	BK / BN	6284	Fuel Tank Pressure Sensor Low Reference	I	—
3	0.5	YE / RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—

B153D Seat Belt Buckle - Driver



35441

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 12047663
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series(BK)

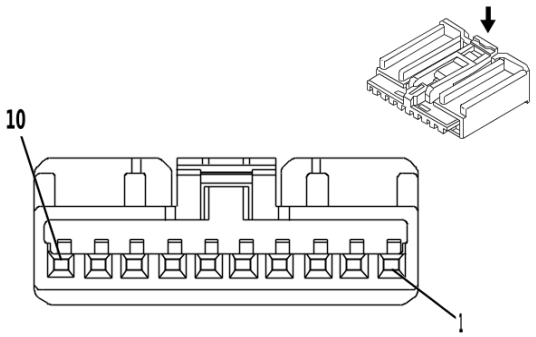
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

B153D Seat Belt Buckle - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	PK	5057	Seat Position Switch Low Reference	I	—
B	—	TN / WH	238	Driver Seat Belt Switch Signal	I	—

B174W Frontview Camera - Windshield



1862241

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: AIT2PB-10-1AK
Service Connector: 13576634
Description: 10-Way F 0.64 Kaizen Series(BK)

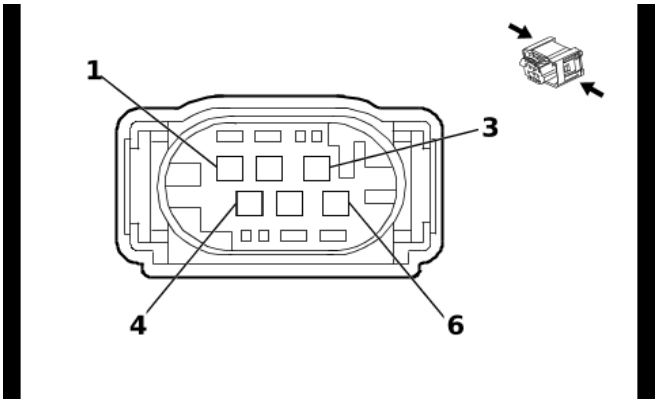
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (L-BU)	J-38125-215A

B174W Frontview Camera - Windshield

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1850	Ground	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	RD / GN	3140	Battery Positive Voltage	I	—
4	0.5	WH	3152	Lane Departure Warning Indicator Control	I	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	GY / WH	3153	Lane Departure Warning Disable Switch Signal	I	—

B176 Multi-axis Acceleration Sensor Module



831393

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-967616-1
Service Connector: 15306420
Description: 6-Way F 0.64 Micro-Quadlock Series, Sealed(BK)

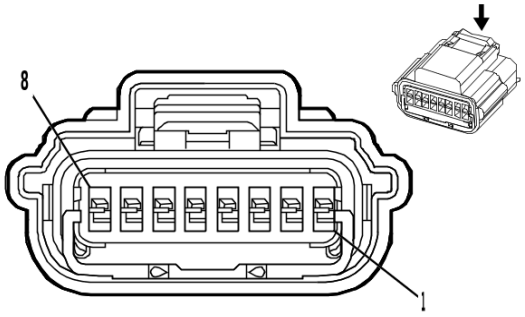
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B176 Multi-axis Acceleration Sensor Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / BN	6045	Steering Angle Sensor Low Reference	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	I	—
5	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
6	0.5	BK / WH	2751	Signal Ground	I	—

B218L Side Object Sensor Module - Left (UFT)



2581486

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: ATSSPB-C0805G-1AK
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 0.64 Series, Sealed(BK)

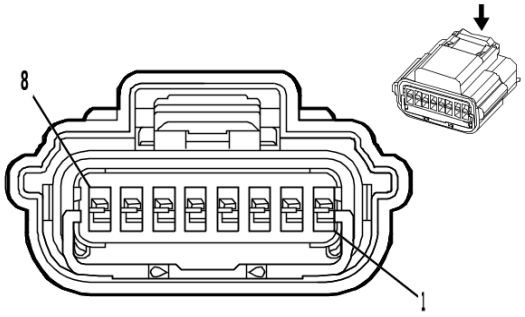
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B218L Side Object Sensor Module - Left (UFT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	GY / YE	5853	Driver Side Side Object Detection LED Signal 1	I	—
5	0.5	RD / GN	3140	Battery Positive Voltage	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	GN / BK	5060	Low Speed GMLAN Serial Data	I	—
8	0.5	BK	2150	Ground	I	—

B218R Side Object Sensor Module - Right (UFT)



2581486

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: ATSSPB-C0805H-1AK
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 0.64 Series, Sealed(BK)

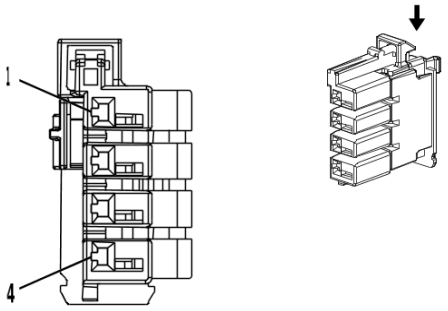
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B218R Side Object Sensor Module - Right (UFT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK	2150	Ground	I	—
4	0.5	GY	5861	Passenger Side Object Detection LED Signal 1	I	—
5	0.5	RD / GN	3140	Battery Positive Voltage	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	GN / BK	5060	Low Speed GMLAN Serial Data	I	—
8	0.5	BK	2150	Ground	I	—

B303 Transmission Range Sensor



4364148

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 2289524-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2 MCON Series(BN)

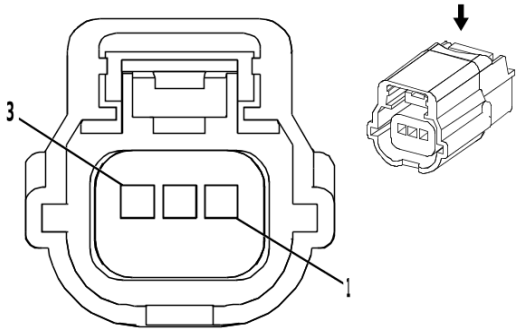
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B303 Transmission Range Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GN / YE	3337	Transmission Internal Mode Switch Mode Control Y	I	—
2	—	WH / RD	596	5V Reference	I	—
3	—	BK / GY	3927	Transmission Internal Mode Switch Feedback Signal	I	—
4	—	BU / WH	3338	Transmission Internal Mode Switch Mode Control X	I	—

B306E Parking Assist Sensor - Rear Left Outer (UD7)



1664596

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 31403-3710
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed(BK)

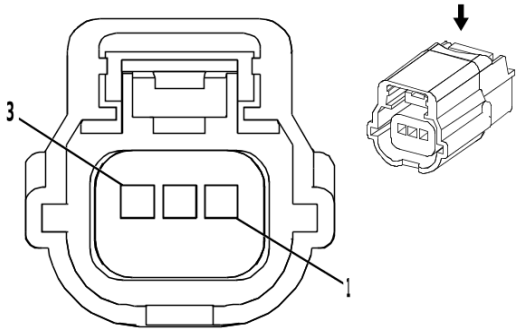
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B306E Parking Assist Sensor - Rear Left Outer (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2374	Object Sensor Voltage Reference	I	UFT
	0.5	BN / WH	2374	Object Sensor Voltage Reference	I	- UFT
2	0.5	GY	2379	Object Sensor Low Reference	I	UFT
	0.5	BK / GY	2379	Object Sensor Low Reference	I	- UFT
3	0.5	YE	2375	Left Rear Outer Parking Assist Sensor Signal	I	—

B306F Parking Assist Sensor - Rear Left Middle (UD7)



1664596

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 31403-3710
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed(BK)

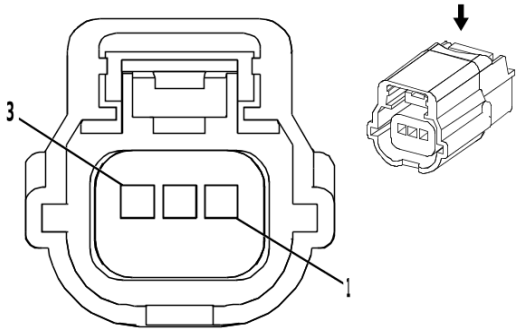
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B306F Parking Assist Sensor - Rear Left Middle (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2374	Object Sensor Voltage Reference	I	UFT
	0.5	BN / WH	2374	Object Sensor Voltage Reference	I	- UFT
2	0.5	GY	2379	Object Sensor Low Reference	I	UFT
	0.5	BK / GY	2379	Object Sensor Low Reference	I	- UFT
3	0.5	OG	2376	Left Rear Middle Parking Assist Sensor Signal	I	UFT
	0.5	YE / BU	2376	Left Rear Middle Parking Assist Sensor Signal	I	- UFT

B306G Parking Assist Sensor - Rear Right Middle (UD7)



1664596

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 31403-3710
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed(BK)

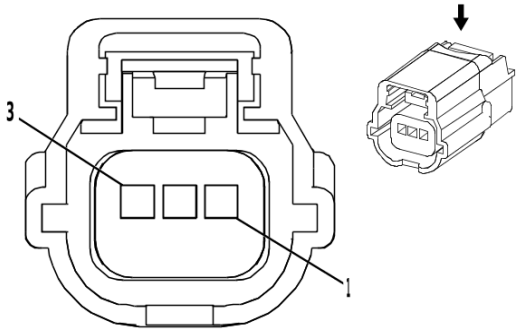
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B306G Parking Assist Sensor - Rear Right Middle (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2374	Object Sensor Voltage Reference	I	UFT
	0.5	BN / WH	2374	Object Sensor Voltage Reference	I	- UFT
2	0.5	GY	2379	Object Sensor Low Reference	I	UFT
	0.5	BK / GY	2379	Object Sensor Low Reference	I	- UFT
3	0.5	GN	2377	Right Rear Middle Parking Assist Sensor Signal	I	UFT
	0.5	YE / WH	2377	Right Rear Middle Parking Assist Sensor Signal	I	- UFT

B306H Parking Assist Sensor - Rear Right Outer (UD7)



1664596

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 31403-3710
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed(BK)

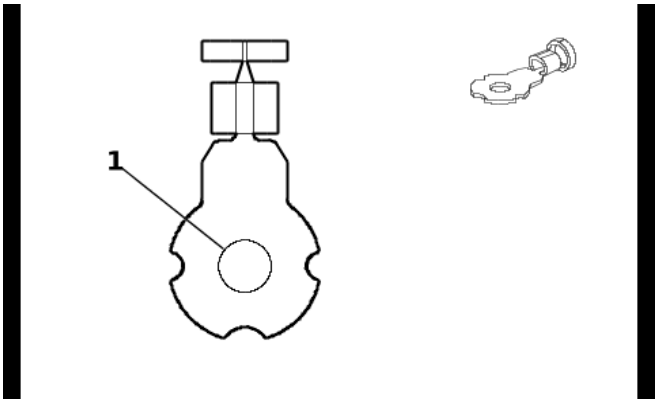
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B306H Parking Assist Sensor - Rear Right Outer (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2374	Object Sensor Voltage Reference	I	UFT
	0.5	BN / WH	2374	Object Sensor Voltage Reference	I	- UFT
2	0.5	GY	2379	Object Sensor Low Reference	I	UFT
	0.5	BK / GY	2379	Object Sensor Low Reference	I	- UFT
3	0.5	PU	2378	Right Rear Outer Parking Assist Sensor Signal	I	UFT
	0.5	YE / VT	2378	Right Rear Outer Parking Assist Sensor Signal	I	- UFT

C1 Battery ((+))



5693569

Connector Part Information

Harness Type: Battery Positive Cable
OEM Connector: 12177185
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

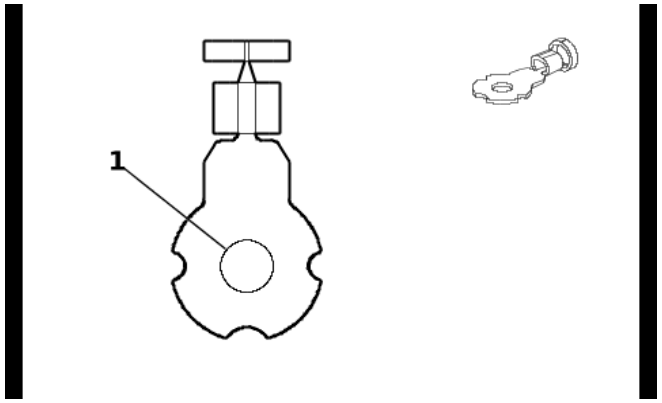
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

C1 Battery ((+))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	32 8	RD RD / BLK TXT	1 1	Unfused Battery Positive Voltage Unfused Battery Positive Voltage	I	— —

C1 Battery ((-))



5693569

Connector Part Information

Harness Type: Battery Negative Cable
OEM Connector: 12177185
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

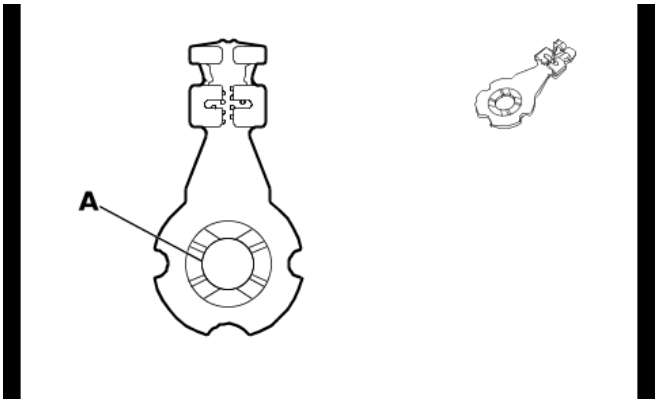
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

C1 Battery ((-))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	19	BK	50	Ground	I	—
	32	BK	50	Ground		—

C1B Battery - Auxiliary X1



6056264

Connector Part Information

Harness Type: Auxiliary Battery Positive Cable
OEM Connector: 12146464
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

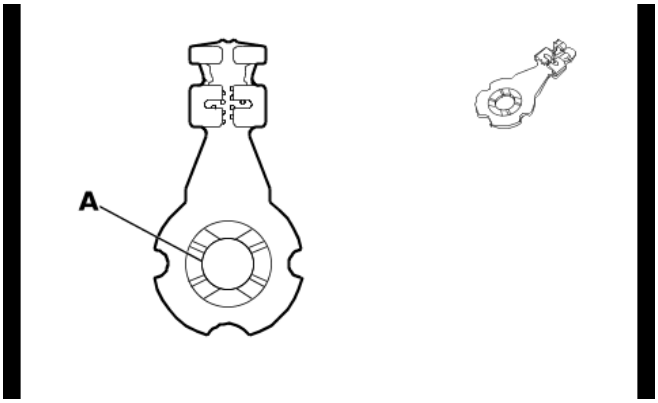
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

C1B Battery - Auxiliary X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

C1B Battery - Auxiliary X2



6056264

Connector Part Information

Harness Type: Auxiliary Battery Negative Cable
OEM Connector: 12146466
Service Connector: Service by Harness - See Part Catalog
Description: —

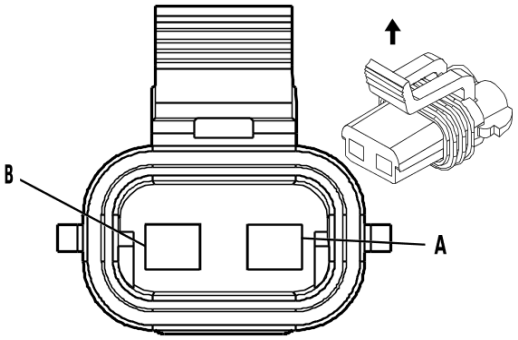
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

C1B Battery - Auxiliary X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	BK	50	Ground	I	—

E2LF Side Marker Lamp - Left Front



68721

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 15300027
Service Connector: 12101855
Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

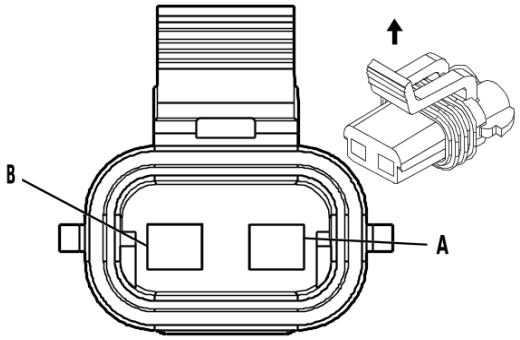
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E2LF Side Marker Lamp - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GY / BN	2309	Front Park Lamp Control	I	—
B	0.5	BK	250	Ground	I	—

E2RF Side Marker Lamp - Right Front



68721

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 15300027
Service Connector: 12101855
Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

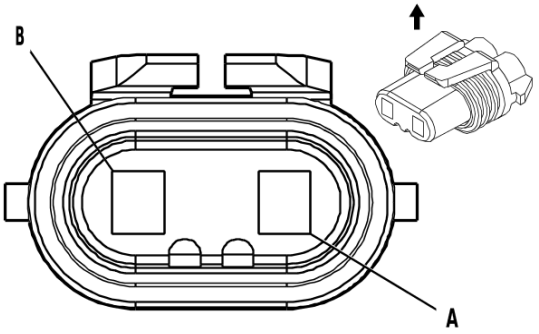
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E2RF Side Marker Lamp - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GY / BN	2309	Front Park Lamp Control	I	—
B	0.5	BK	650	Ground	I	—

E4E Headlamp - Left High Beam



684797

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 12059183
Service Connector: 12101898
Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

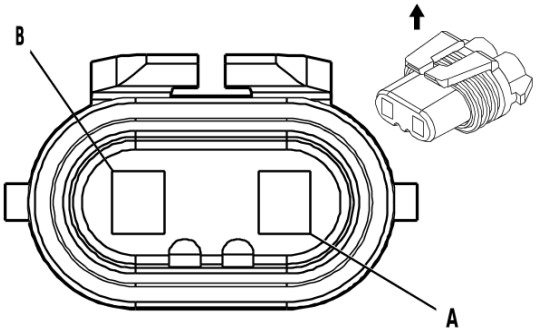
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E4E Headlamp - Left High Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH	711	Left Headlamp High Beam Control	I	—
B	0.75	BK	250	Ground	I	—

E4F Headlamp - Right High Beam



684797

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 12059183
Service Connector: 12101898
Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

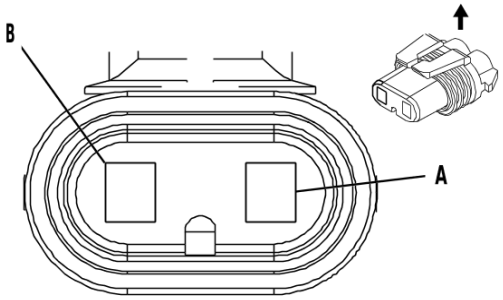
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E4F Headlamp - Right High Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH	311	Right Headlamp High Beam Control	I	—
B	0.75	BK	650	Ground	I	—

E4G Headlamp - Left Low Beam



684796

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 12059181
Service Connector: 19301866
Description: 2-Way F 280 Metri-Pack Series, Sealed(GY)

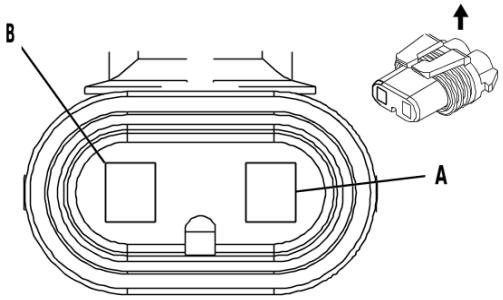
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E4G Headlamp - Left Low Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	YE	712	Left Headlamp Low Beam Control	I	—
B	0.75	BK	250	Ground	I	—

E4H Headlamp - Right Low Beam



684796

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 12059181
Service Connector: 19301866
Description: 2-Way F 280 Metri-Pack Series, Sealed(GY)

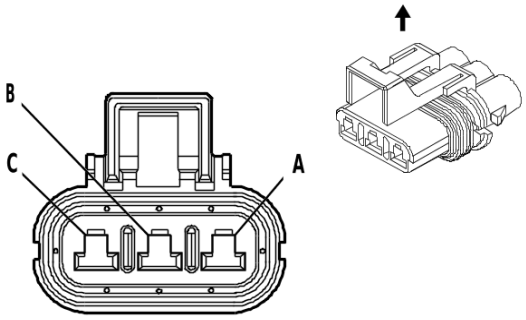
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E4H Headlamp - Right Low Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	YE	312	Right Headlamp Low Beam Control	I	—
B	0.75	BK	650	Ground	I	—

E4N Park/Turn Signal Lamp - Left



847206

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 12040977
Service Connector: 12085492
Description: 3-Way F 280 Metri-Pack Series, Sealed(BK)

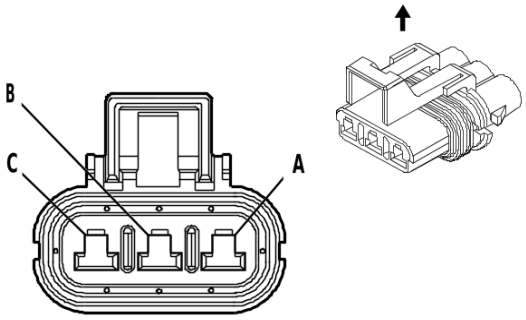
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E4N Park/Turn Signal Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BU / WH	1314	Left Front Turn Signal Lamp Control	I	—
B	0.5	GY / BN	2309	Front Park Lamp Control	I	—
C	0.5	BK	250	Ground	I	—

E4P Park/Turn Signal Lamp - Right



847206

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 12040977
Service Connector: 12085492
Description: 3-Way F 280 Metri-Pack Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E4P Park/Turn Signal Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	GN / VT	1315	Right Front Turn Signal Lamp Control	I	—
B	0.5	GY / BN	2309	Front Park Lamp Control	I	—
C	0.5	BK	650	Ground	I	—

E5A Backup Lamp - Left

—

Connector Part Information

Harness Type: Tail Lamp Wiring Harness
OEM Connector: EEM0274
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E5A Backup Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	GN	24	Backup Lamp Control	I	—
G	—	BK	850	Ground	I	—

E5B Backup Lamp - Right

—

Connector Part Information

Harness Type: Tail Lamp Wiring Harness
OEM Connector: EEM0274
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E5B Backup Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	GN	24	Backup Lamp Control	I	—
G	—	BK	1050	Ground	I	—

E5S Tail/Stop and Turn Signal Lamp - Left

—

Connector Part Information

Harness Type: Tail Lamp Wiring Harness
OEM Connector: EEM0275
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E5S Tail/Stop and Turn Signal Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	— —	BN BN	2509 2509	Left Rear Park Lamp Control Left Rear Park Lamp Control	I	— —
G	—	BK	850	Ground	I	—

E5T Tail/Stop and Turn Signal Lamp - Right

—

Connector Part Information

Harness Type: Tail Lamp Wiring Harness
OEM Connector: EEM0275
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way

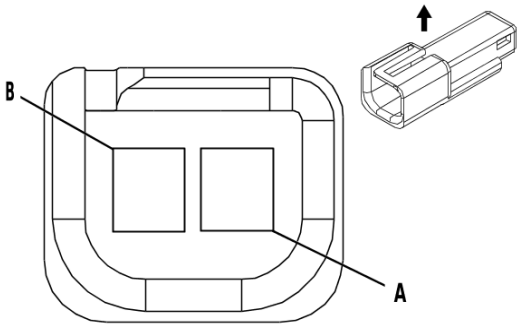
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E5T Tail/Stop and Turn Signal Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BN	2609	Right Rear Park Lamp Control	I	PASSENGER/ CARGO
B	—	BN	2609	Right Rear Park Lamp Control	I	—
G	—	BK	1050	Ground	I	—

E6 Center High Mounted Stop Lamp



35441

Connector Part Information

Harness Type: Center High Mounted Stop Lamp
OEM Connector: 12047663
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series(BK)

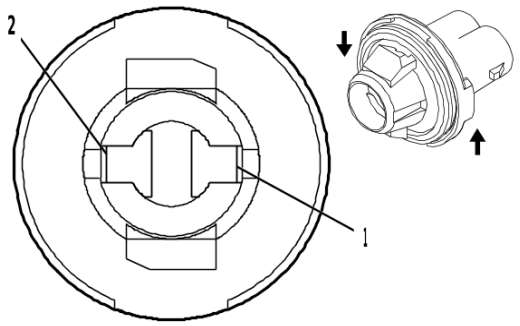
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

E6 Center High Mounted Stop Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BU	1320	Center High Mounted Stop Lamp Control 2	I	—
B	—	BK	850	Ground	I	—

E7 License Plate Lamp



5153536

Connector Part Information

Harness Type: Rear Door Door Wiring Harness
OEM Connector: 15324946
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Lamp Socket Wedge Base, Type W-2(D-GY)

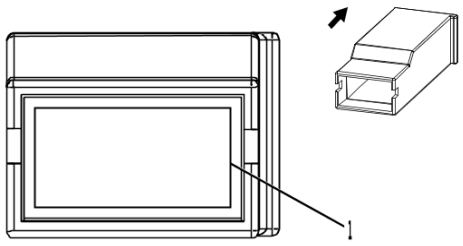
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E7 License Plate Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	2509	Left Rear Park Lamp Control	I	—
2	0.5	BK	1050	Ground	I	—

E18L Rear Defogger Grid - Left X1



2500421

Connector Part Information

Harness Type: Rear Window Defogger Wiring Harness
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series(BK)

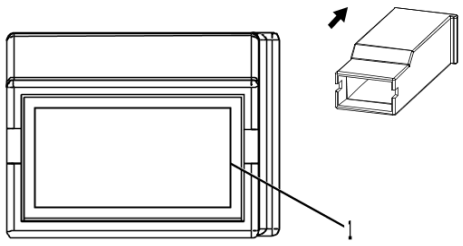
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

E18L Rear Defogger Grid - Left X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
A	5	PU	293	Rear Defogger Grid Control	I	—

E18L Rear Defogger Grid - Left X2



2500421

Connector Part Information

Harness Type: Rear Window Defogger Wiring Harness
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series(BK)

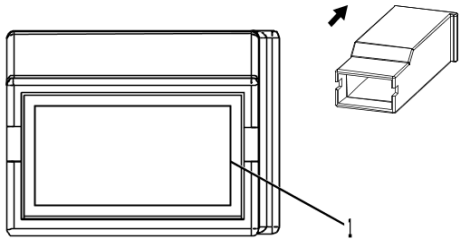
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

E18L Rear Defogger Grid - Left X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
A	3	BK	850	Ground	I	—

E18R Rear Defogger Grid - Right X1



2500421

Connector Part Information

Harness Type: Rear Window Defogger Wiring Harness
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series(BK)

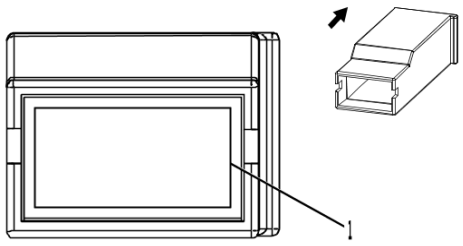
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

E18R Rear Defogger Grid - Right X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
A	5	PU	293	Rear Defogger Grid Control	I	—

E18R Rear Defogger Grid - Right X2



2500421

Connector Part Information

Harness Type: Rear Window Defogger Wiring Harness
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series(BK)

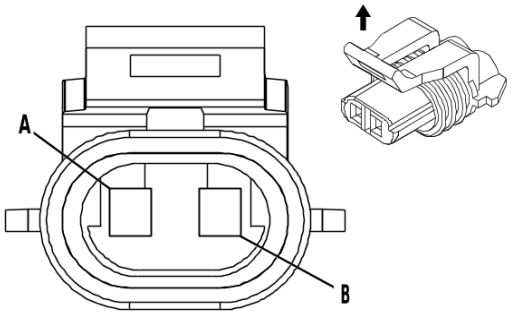
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

E18R Rear Defogger Grid - Right X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
A	3	BK	1050	Ground	I	—

E22 Underhood Lamp (TR9)



537107

Connector Part Information

Harness Type: Jumper Wiring Harness
OEM Connector: 12052644
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series, Sealed(GY)

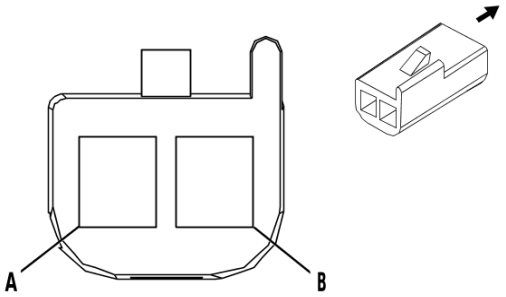
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E22 Underhood Lamp (TR9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	OG	1732	Control Module 12V Reference 3	I	—
B	—	BK	1250	Ground	I	—

E36AC Dome Lamp - Left Roof Rail



82383

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series(BK)

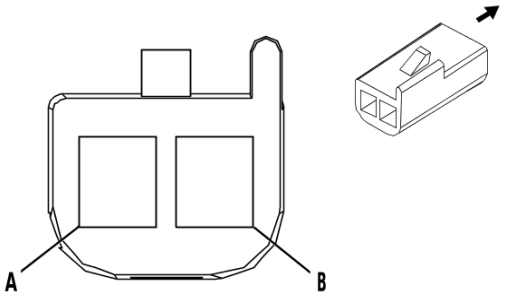
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E36AC Dome Lamp - Left Roof Rail

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BU / WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground	I	—

E36AD Dome Lamp - Right Roof Rail



82383

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series(BK)

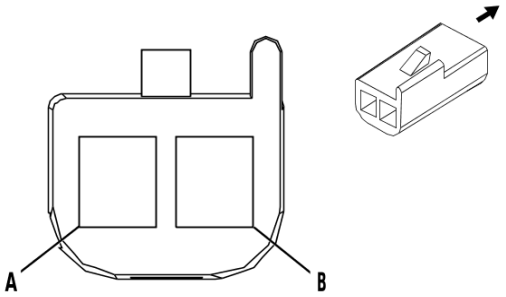
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E36AD Dome Lamp - Right Roof Rail

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BU / WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground	I	—

E36AH Dome Lamp



82383

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series(BK)

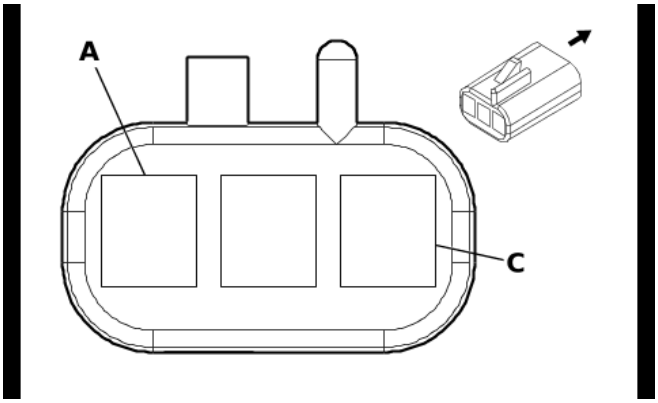
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E36AH Dome Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BU / WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground	I	—

E37F Dome/Reading Lamps - Front



333035

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 12047781
Service Connector: 13586139
Description: 3-Way F 150 Metri-Pack Series(BK)

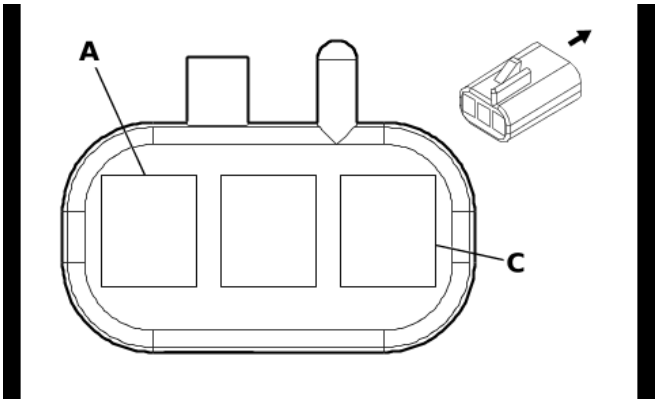
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E37F Dome/Reading Lamps - Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU / WH	149	Courtesy Lamp Control	I	—
B	1 0.8	BK BK	1850 1850	Ground Ground	I I	DH6 - DH6
C	0.8	OG	1732	Control Module 12V Reference 3	I	—

E37M Dome/Reading Lamps - Middle



333035

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 12047781
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 150 Metri-Pack Series(BK)

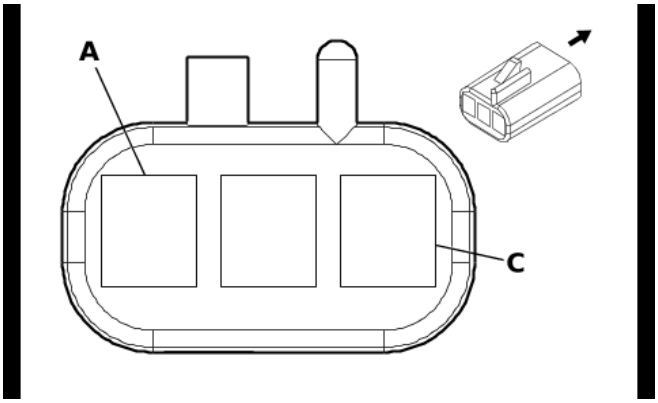
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E37M Dome/Reading Lamps - Middle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BU / WH	149	Courtesy Lamp Control	I	—
B	—	BK	1050	Ground	I	—
C	—	OG	1732	Control Module 12V Reference 3	I	—

E37R Dome/Reading Lamps - Rear



333035

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 12047781
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 150 Metri-Pack Series(BK)

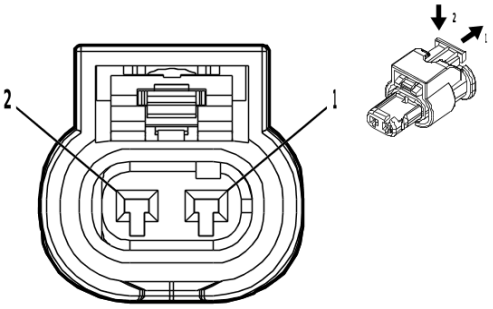
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E37R Dome/Reading Lamps - Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BU / WH	149	Courtesy Lamp Control	I	—
B	—	BK	1050	Ground	I	—
C	—	OG	1732	Control Module 12V Reference 3	I	—

F101 Passenger Instrument Panel Air Bag



2698576

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 1-1823608-4
Service Connector: 19369032
Description: 2-Way F 1.2 MCON Series, Sealed(YE)

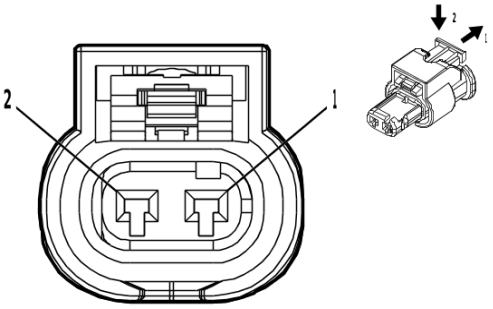
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

F101 Passenger Instrument Panel Air Bag

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	3025	Passenger Instrument Panel Air Bag Stage 1 High Control	I	—
2	0.5	OG	3024	Passenger Instrument Panel Air Bag Stage 1 Low Control	I	—

F105LF Roof Rail Air Bag - Left Front (ASF)



2698576

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-1823608-4
Service Connector: 19369032
Description: 2-Way F 1.2 MCON Series, Sealed(YE)

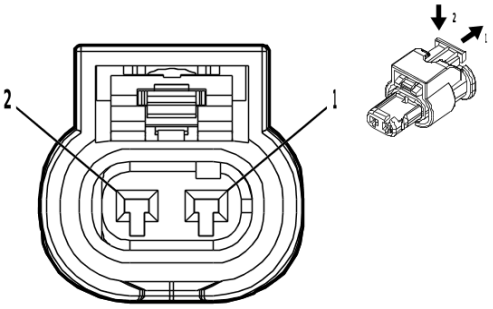
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

F105LF Roof Rail Air Bag - Left Front (ASF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	PK	5020	Left Front Roof Rail Air Bag Low Control	I	—
2	0.5	PU / WH	5019	Left Front Roof Rail Air Bag High Control	I	—

F105RF Roof Rail Air Bag - Right Front (ASF)



2698576

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-1823608-4
Service Connector: 19369032
Description: 2-Way F 1.2 MCON Series, Sealed(YE)

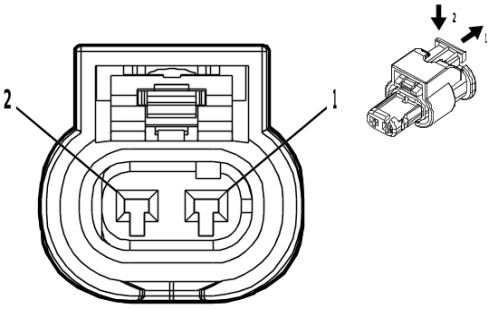
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

F105RF Roof Rail Air Bag - Right Front (ASF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BK	5022	Right Front Roof Rail Air Bag Low Control	I	—
2	0.5	YE / BK	5021	Right Front Roof Rail Air Bag High Control	I	—

F105RR Roof Rail Air Bag - Right Rear (ASF)



2698576

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-1823608-4
Service Connector: 19369032
Description: 2-Way F 1.2 MCON Series, Sealed(YE)

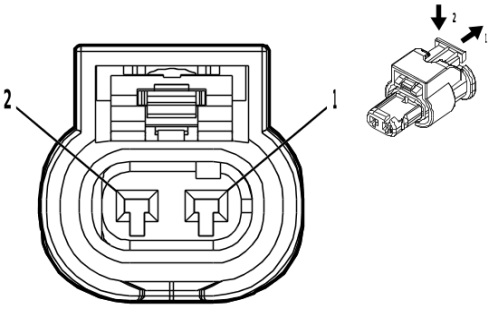
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

F105RR Roof Rail Air Bag - Right Rear (ASF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	TN / BK	7016	Right Rear Roof Rail Air Bag Low Control	I	—
2	0.5	BU	7015	Right Rear Roof Rail Air Bag High Control	I	—

F106D Seat Side Air Bag - Driver (AK5)



2698576

Connector Part Information

Harness Type: Driver Seat Air Bag Jumper
OEM Connector: 13580144
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed(YE)

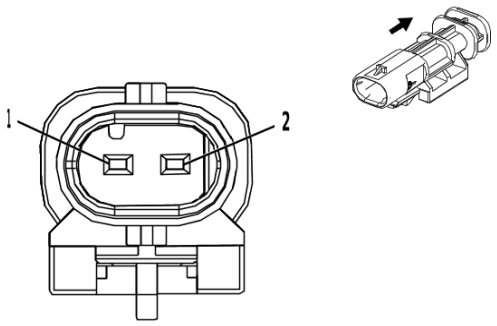
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

F106D Seat Side Air Bag - Driver (AK5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BN	2137	Left Front Seat Side Air Bag High Control	I	—
2	—	YE / BK	2138	Left Front Seat Side Air Bag Low Control	I	—

F106P Seat Side Air Bag - Passenger (AK5)



2474755

Connector Part Information

Harness Type: Passenger Seat Air Bag Jumper
OEM Connector: 13580142
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 MCON Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

F106P Seat Side Air Bag - Passenger (AK5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	TN / WH	2135	Right Front Seat Side Air Bag High Control	I	—
2	—	GN	2136	Right Front Seat Side Air Bag Low Control	I	—

F107 Steering Wheel Air Bag

—

Connector Part Information

Harness Type: Steering Wheel Air Bag
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

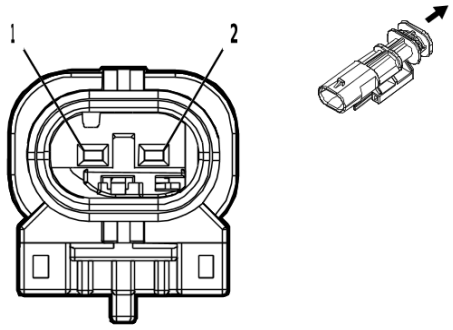
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

F107 Steering Wheel Air Bag

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	TN	3021	Steering Wheel Air Bag Stage 1 High Control	I	—
2	—	BN	3020	Steering Wheel Air Bag Stage 1 Low Control	I	—

F109D Seat Belt Buckle Pretensioner - Driver



4569729

Connector Part Information

Harness Type: Driver Seat Pretensioner Jumper
OEM Connector: 13581182
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 MCON Series, Sealed(YE)

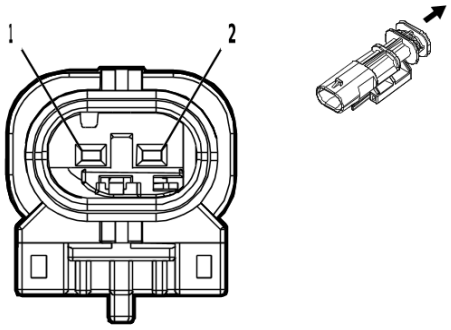
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

F109D Seat Belt Buckle Pretensioner - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	TN / WH	2118	Driver Seat Belt Pretensioner High Control	I	—
2	—	OG / BK	2119	Driver Seat Belt Pretensioner Low Control	I	—

F109P Seat Belt Buckle Pretensioner - Passenger (AK5)



4569729

Connector Part Information

Harness Type: Passenger Seat Pretensioner Jumper
OEM Connector: 13581182
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 MCON Series, Sealed(YE)

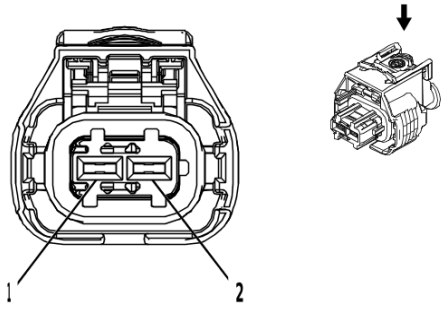
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

F109P Seat Belt Buckle Pretensioner - Passenger (AK5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GN	2116	Passenger Seat Belt Pretensioner High Control	I	—
2	—	OG	2117	Passenger Seat Belt Pretensioner Low Control	I	—

G13 Generator X1 (L8T)



2577394

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1 928 405 714
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed(BK)

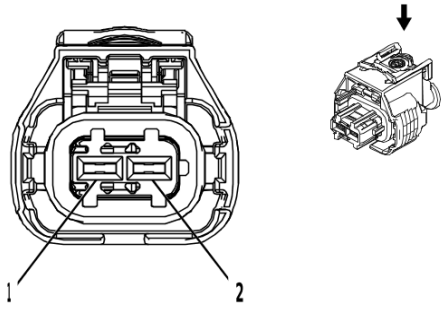
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

G13 Generator X1 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	25	Charge Indicator Control	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13 Generator X1 (LV1)



2577394

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1 928 405 714
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed(BK)

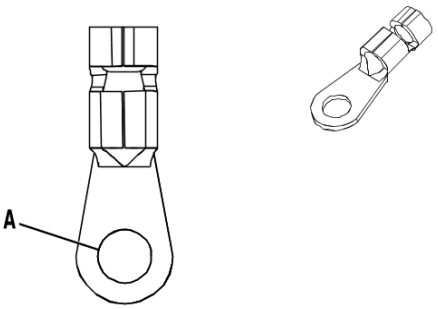
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

G13 Generator X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	25	Charge Indicator Control	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13 Generator X2 (K68)



2268698

Connector Part Information

Harness Type: Battery Positive Cable
OEM Connector: 12129598
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

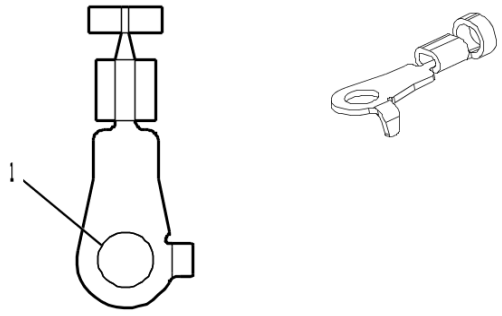
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

G13 Generator X2 (K68)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X2 (KG4)



4833656

Connector Part Information

Harness Type: Battery Positive Cable
OEM Connector: 15544794
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

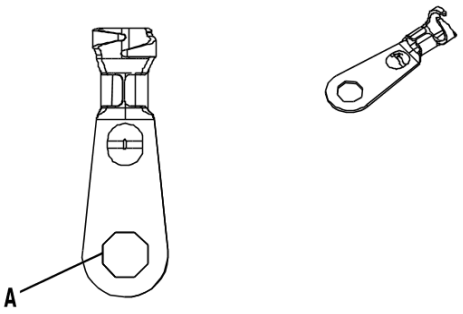
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

G13 Generator X2 (KG4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	25	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X2 (KW5)



3214043

Connector Part Information

Harness Type: Battery Positive Cable
OEM Connector: 33257772
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

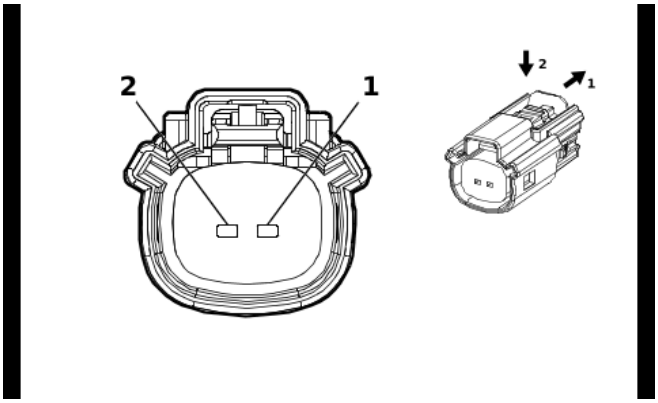
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

G13 Generator X2 (KW5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	25	RD	1	Unfused Battery Positive Voltage	I	—

G18 High Pressure Fuel Pump



2474713

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 33471-0206
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

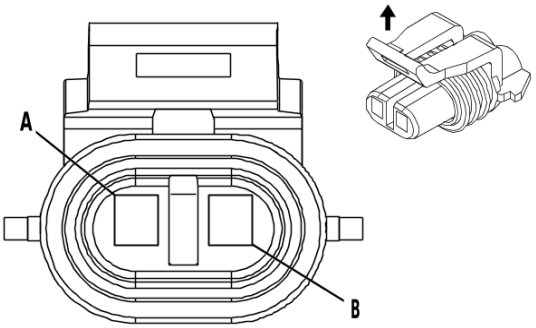
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

G18 High Pressure Fuel Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	VT / BK	7300	High Pressure Fuel Pump Low Control	I	—
2	0.8	YE	7301	High Pressure Fuel Pump High Control	I	—

G24 Windshield Washer Pump



635009

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

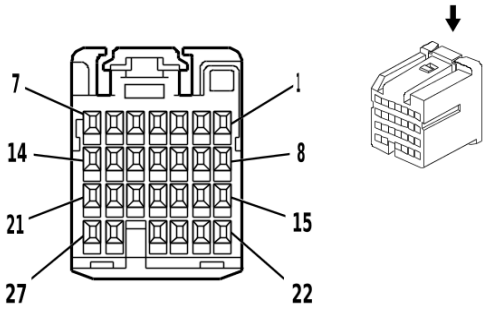
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

G24 Windshield Washer Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	OG	228	Windshield Washer Pump Control	I	—
B	0.5	BK	350	Ground	I	—

K9 Body Control Module X1



1664495

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: HITPB-27-A-LM
Service Connector: 88988838
Description: 27-Way F HIT Series(L-GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A

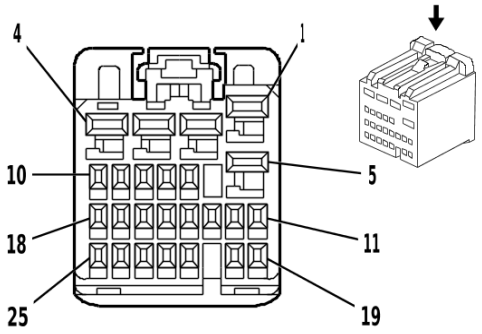
K9 Body Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	PK	1020	Off/Run/Crank Ignition Voltage	I	—
3	0.35	GY	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
4	0.35	WH	530	Off/Run/Crank Ignition Voltage	I	—
5	0.35	GN	1715	Windshield Wiper Switch High Signal	I	—
6	0.35	GN	6818	Steering Wheel Controls Signal 1	I	—
7	—	—	—	Not Occupied	—	—
8	0.35	TN / BK	6009	Windshield Wiper Switch Low Reference	I	—
9	0.35	BU	1714	Windshield Wiper Switch Low Signal	I	—
10 - 13	—	—	—	Not Occupied	—	—
14	0.35	PK	3	Run/Crank Ignition 1 Voltage	I	—
15	0.35	GN	663	Hazard Switch Left Turn Signal	I	—
16	0.35	TN	664	Hazard Switch Right Turn Signal	I	—
17	0.35	PK	1444	12V Reference	I	—
18	0.35	YE	525	High Beam Select Switch Low Beam Signal	I	—
19	0.35	WH	111	Hazard Warning Switch Signal	I	—
20	0.35	PU	5526	Tap Up/Tap Down Switch Signal	I	—
21	0.35	BN	4	Accessory Ignition Voltage	I	—
22	—	—	—	Not Occupied	—	—
23	0.35	BU	1788	Traction Control Switch Signal 1	I	—
24	0.35	PK	94	Windshield Washer Switch Signal	I	—

K9 Body Control Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	0.35	YE	307	Headlamp Switch Flash Signal	I	—
26	0.5	TN / WH	816	Brake Transmission Shift Interlock Solenoid Actuator Control	I	—
27	—	—	—	Not Occupied	—	—

K9 Body Control Module X2



1664496

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: HITPB-25-B-S
Service Connector: 88988839
Description: 25-Way F HIT Series(NA)

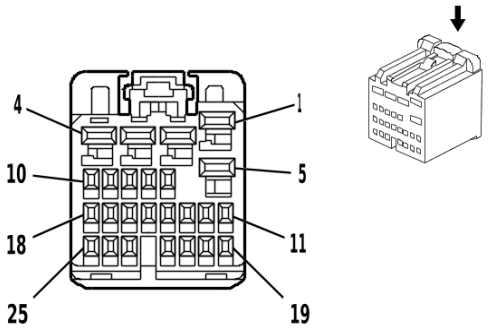
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A
II	13575871	J-35616-35 (VT)	J-38125-12A

K9 Body Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	OG	1732	Control Module 12V Reference 3	II	—
2	0.5	RD / WH	2540	Battery Positive Voltage	II	—
3	0.5	BN / WH	230	Instrument Panel Lamp Dimming Control	II	—
4	—	—	—	Not Occupied	—	—
5	0.8	BU / WH	149	Courtesy Lamp Control	II	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.35	BU	13	Headlamp Switch Park Lamp Signal	I	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.35	WH	278	Ambient Light Sensor Signal	I	—
12	0.35	WH	103	Headlamp Switch On Signal	I	—
13 - 16	—	—	—	Not Occupied	—	—
17	0.35	GN	306	Headlamp Switch Off Signal	I	—
18	0.35	BU / WH	149	Courtesy Lamp Control	I	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	BU	6727	Vehicle Stability Control Switch Signal	I	—
22	0.35	BU	38	Backup Lamp Relay Control	I	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.35	PU	328	Interior Lamp Defeat Switch Signal	I	—

K9 Body Control Module X3



1664498

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: HITPB-25-C-LE
Service Connector: 88988840
Description: 25-Way F HIT Series(L-BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A
II	13575871	J-35616-35 (VT)	J-38125-12A

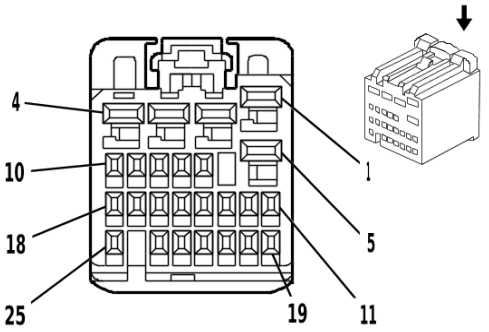
K9 Body Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	BK / WH	351	Signal Ground	II	—
2	0.8	RD / WH	2140	Battery Positive Voltage	II	—
3	0.5	RD / WH	3840	Battery Positive Voltage	II	—
4	—	—	—	Not Occupied	—	—
5	0.8	BK / WH	351	Signal Ground	II	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
9	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
10	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
11	0.35	GN	44	Instrument Panel Lamp Dimmer Switch Signal	I	—
12	0.35	OG / WH	812	12V Reference	I	—
13	0.5	TN	5380	Brake Position Sensor Signal	I	—
14	0.5	BN / WH	5382	Brake Position Sensor Low Reference	I	—
15	0.5	GY	5381	Brake Position Sensor 5V Reference	I	—
16	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
17	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
18	0.5	YE	6817	LED Backlight Dimming Control 1	I	—
19	0.5	WH / BU	5986	Serial Data Communication Enable	I	—
20 - 21	—	—	—	Not Occupied	—	—
22	0.35	GN / WH	7158	Cruise Control Indicator Dimming Signal	I	—
23 - 24	—	—	—	Not Occupied	—	—

K9 Body Control Module X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	0.35	WH	6816	Indicator Dimming Control	I	—

K9 Body Control Module X4



1664499

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: HITPB-25-D-K
Service Connector: 88988841
Description: 25-Way F HIT Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A
II	13575871	J-35616-35 (VT)	J-38125-12A

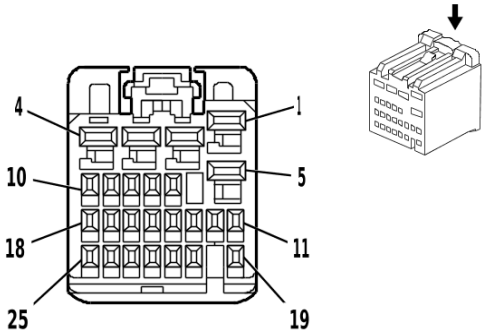
K9 Body Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	RD / WH	2740	Battery Positive Voltage	II	—
2	0.8	RD / WH	3040	Battery Positive Voltage	II	—
3	0.8	RD / WH	2940	Battery Positive Voltage	II	—
4	0.8	RD / WH	2240	Battery Positive Voltage	II	—
5	0.8	BU / WH	1315	Right Front Turn Signal Lamp Control	II	—
6	0.35	GN	6134	Body Control Module LIN Bus 3	I	—
7	0.35	YE	196	Windshield Wiper Motor Park Switch Signal	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	BK / WH	451	Signal Ground	I	—
10	0.5	RD / WH	2840	Battery Positive Voltage	I	—
11	—	—	—	Not Occupied	—	—
12	0.35	YE	5187	Right Trailer Turn Signal Lamp Control	I	—
13	0.35	OG	5186	Left Trailer Turn Signal Lamp Control	I	—
14	—	—	—	Not Occupied	—	—
15	0.35	OG	2268	Windshield Washer Relay Control	I	—
16	0.35	TN / WH	1969	Headlamp High Beam Relay Control	I	—
17	0.5	PK / BK	109	Hood Ajar Switch Signal	I	—
18	—	—	—	Not Occupied	—	—
19	0.5	BU	5985	Accessory Wake-Up Serial Data	I	—
20	—	—	—	Not Occupied	—	—
21	0.35	YE	5199	Run/Crank Relay Coil Control	I	—

K9 Body Control Module X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
22	—	—	—	Not Occupied	—	—
23	0.35	PU	544	DRL Relay Control	I	—
24 - 25	—	—	—	Not Occupied	—	—

K9 Body Control Module X5



1664500

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: HITPB-25-E-N
Service Connector: 88988837
Description: 25-Way F HIT Series(BN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A
II	13575871	J-35616-35 (VT)	J-38125-12A

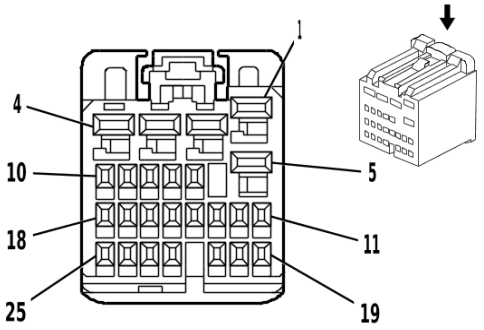
K9 Body Control Module X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE	618	Left Rear Turn Signal Lamp Control	II	—
2	1	GN	619	Right Rear Turn Signal Lamp Control	II	—
3	—	—	—	Not Occupied	—	—
4	0.8	BU / WH	1314	Left Front Turn Signal Lamp Control	II	—
5	0.5	WH	5065	Stop Lamp Relay Coil Control	II	—
6	0.35	WH / BU	6311	Cruise/ETC/TCC Brake Signal	I	—
7 - 10	—	—	—	Not Occupied	—	—
11	0.35	YE	43	Accessory Ignition Voltage	I	—
12	—	—	—	Not Occupied	—	—
13	0.35	OG	300	Run Ignition 3 Voltage	I	—
14	0.5	GN	24	Backup Lamp Control	I	—
15	0.5	PU	5531	Hood Closed Switch Signal	I	—
16	0.35	BU	1134	Park Brake Switch Signal	I	—
17	—	—	—	Not Occupied	—	—
18	0.35	TN	28	Horn Relay Control	I	—
19	—	—	—	Not Occupied	—	—
20	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	I	—
21	0.35	TN	860	Windshield Wiper Switch High Signal	I	—
22	—	—	—	Not Occupied	—	—
23	0.35	PK / WH	1970	Headlamp Low Beam Relay Control	I	—
24	0.35	BU	45	Park Lamp Relay Control	I	—

K9 Body Control Module X5 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	—	—	—	Not Occupied	—	—

K9 Body Control Module X6



1664502

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: HITPB-25-F-PK
Service Connector: 88988842
Description: 25-Way F HIT Series(PK)

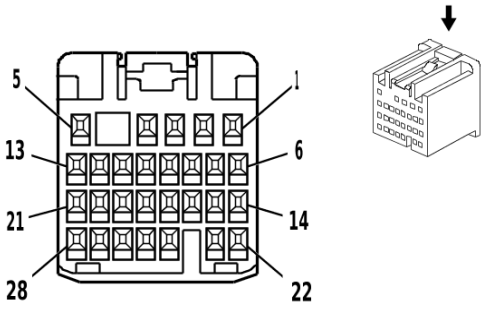
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A
II	13575871	J-35616-35 (VT)	J-38125-12A

K9 Body Control Module X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.8	BU	1320	Center High Mounted Stop Lamp Control 2	II	—
3 - 7	—	—	—	Not Occupied	—	—
8	0.35	TN / WH	746	Right Front Door Ajar Switch Signal	I	—
9	0.35	BU	245	Passenger Door Lock Switch Unlock Control	I	—
10	0.35	GY / BK	745	Left Front Door Ajar Switch Signal	I	—
11	—	—	—	Not Occupied	—	—
12	0.35	PK / BK	1303	Liftgate Ajar Switch Signal 1	I	—
13	—	—	—	Not Occupied	—	—
14	0.35	YE / BK	1181	Right Rear Door Open Switch Signal	I	—
15	—	—	—	Not Occupied	—	—
16	0.35	GN	1177	Right Front Door Open Switch Signal	I	—
17	—	—	—	Not Occupied	—	—
18	0.35	BU	244	Passenger Door Lock Switch Lock Control	I	—
19 - 21	—	—	—	Not Occupied	—	—
22	0.35	GN	5926	Rear Body Opening Open Switch Signal	I	—
23 - 25	—	—	—	Not Occupied	—	—

K9 Body Control Module X7



1664505

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: HITPB-28-G-H
Service Connector: 88988806
Description: 28-Way F HIT Series(GY)

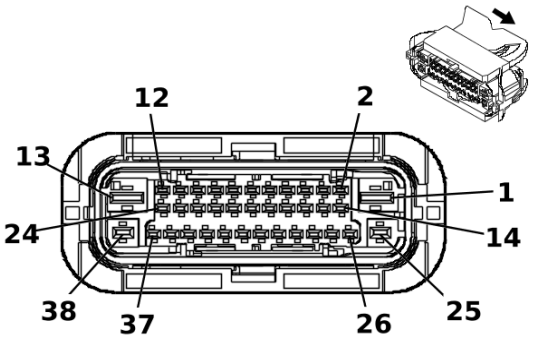
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A

K9 Body Control Module X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	YE	356	Driver Door Lock Relay Unlock Control	I	—
3 - 5	—	—	—	Not Occupied	—	—
6	0.5	YE	356	Driver Door Lock Relay Unlock Control	I	—
7	0.5	BU	244	Passenger Door Lock Switch Lock Control	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	BU	244	Passenger Door Lock Switch Lock Control	I	—
10	—	—	—	Not Occupied	—	—
11	0.5	OG / BK	781	Driver Door Lock Switch Unlock Signal	I	—
12	0.5	PK / BK	780	Driver Door Lock Switch Lock Signal	I	—
13 - 22	—	—	—	Not Occupied	—	—
23	0.5	TN	126	Left Front Door Open Switch Signal	I	—
24	0.5	GN	66	Air Conditioning Request Signal	I	—
25 - 28	—	—	—	Not Occupied	—	—

K17 Electronic Brake Control Module



5199340

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 35497867
Service Connector: Service by Harness - See Part Catalog
Description: 38-Way F 1.5, 2.8, 4.8 MCP Series, Sealed(BK with BN Inner Connector)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	Not required	J-35616-42 (RD)	No Tool Required

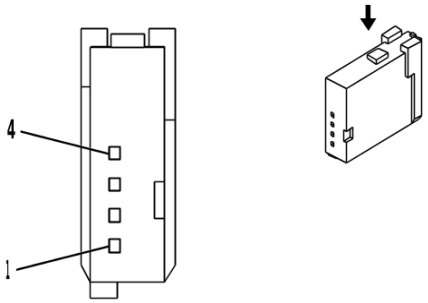
K17 Electronic Brake Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD / YE	442	Battery Positive Voltage	III	—
2	—	—	—	Not Occupied	—	—
3	0.5	GY / YE	7128	Right Rear Wheel Speed Sensor Control	I	—
4	0.5	VT	882	Right Rear Wheel Speed Sensor Signal	I	—
5	0.5	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	I	—
6	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
9	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
10	0.5	GY / BN	7065	Right Front Wheel Speed Sensor Control	I	—
11	0.5	YE	872	Right Front Wheel Speed Sensor Signal	I	—
12	—	—	—	Not Occupied	—	—
13	5	BK	2150	Ground	III	—
14 - 16	—	—	—	Not Occupied	—	—
17	0.5	GN / BN	2087	Multi-axis Acceleration Sensor Supply Voltage	I	—
18 - 19	—	—	—	Not Occupied	—	—
20	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
21	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
22 - 24	—	—	—	Not Occupied	—	—
25	2.5	RD / VT	1640	Battery Positive Voltage	II	—

K17 Electronic Brake Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
26 - 27	—	—	—	Not Occupied	—	—
28	0.5	WH / BU	5986	Serial Data Communication Enable	I	—
29	0.5	GY / BK	7127	Left Rear Wheel Speed Sensor Control	I	—
30	0.5	BU	884	Left Rear Wheel Speed Sensor Signal	I	—
31 - 34	—	—	—	Not Occupied	—	—
35	0.5	GY / WH	7064	Left Front Wheel Speed Sensor Control	I	—
36	0.5	GY	830	Left Front Wheel Speed Sensor Signal	I	—
37	—	—	—	Not Occupied	—	—
38	2.5	BK	2150	Ground	II	—

K18 Compass Module



2831061

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: AIT2PB-04M-1AK
Service Connector: 19300398
Description: 4-Way F 0.64 Series(BK)

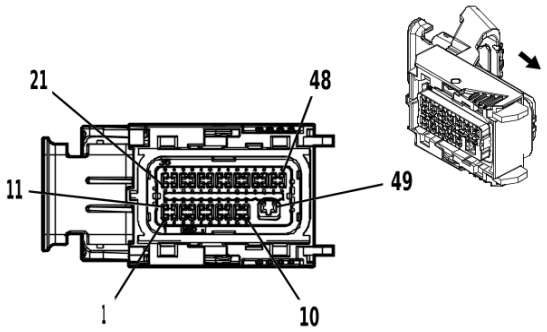
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K18 Compass Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN	441	Run Ignition 3 Voltage	I	—
2	0.5	BK / WH	351	Signal Ground	I	—
3	0.35	GN	6134	Body Control Module LIN Bus 3	I	—
4	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L8T)



4596458

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34576-0303
Service Connector: 19368142
Description: 49-Way F 0.64, 2.8 Series, Sealed(BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19351723	J-35616-64B (L-BU)	J-38125-213

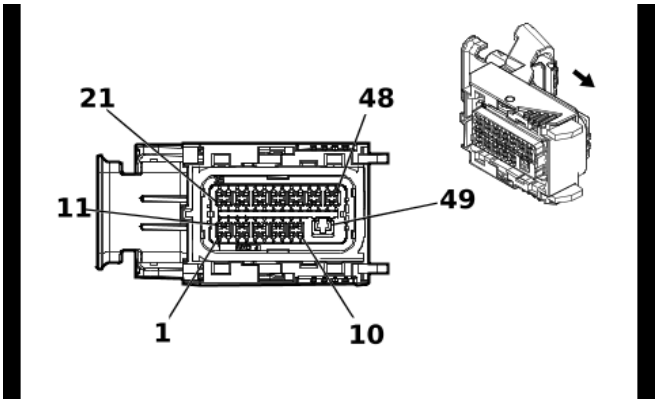
K20 Engine Control Module X1 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / WH	492	Mass Air Flow Sensor Signal	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	WH / BU	6311	Cruise/ETC/TCC Brake Signal	II	—
7	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
8	0.5	BN / WH	419	Check Engine Indicator Control	II	—
9	0.5	YE	5991	Powertrain Relay Coil Control	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.5	BU / GY	636	Ambient Air Temperature Sensor Signal	II	—
13	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	II	—
14	0.5	WH / GN	5380	Brake Position Sensor Signal	II	—
15 - 16	—	—	—	Not Occupied	—	—
17	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
18	0.5	WH / GY	459	Air Conditioning Compressor Clutch Relay Control	II	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	GN / BU	428	EVAP Canister Purge Solenoid Control	II	—
22	—	—	—	Not Occupied	—	—
23	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	II	—
24	0.5	BK / BU	1271	Accelerator Pedal Position Low Reference 1	II	—

K20 Engine Control Module X1 (L8T) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25 - 26	—	—	—	Not Occupied	—	—
27	0.5	GN / YE	3337	Transmission Internal Mode Switch Mode Control Y	II	—
28	0.5	BN / GN	1174	Oil Level Switch Signal	II	—
29	—	—	—	Not Occupied	—	—
30	0.5	BK / VT	1272	Accelerator Pedal Position Low Reference 2	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	II	—
33	0.5	VT / YE	5985	Accessory Wake-Up Serial Data	II	—
34	0.5	RD / WH	140	Battery Positive Voltage	II	—
35	—	—	—	Not Occupied	—	—
36	0.5	YE / BK	625	Starter Enable Relay Control	II	—
37	0.5	GN / GY	465	Fuel Pump Primary Relay Control	II	—
38	0.5	WH / RD	1164	Accelerator Pedal Position 5V Reference 1	II	—
39	0.5	YE / WH	1161	Accelerator Pedal Position Signal 1	II	—
40	0.5	YE / BN	331	Oil Pressure Sensor Signal	II	—
41	0.5	GN	380	Air Conditioning Refrigerant Pressure Sensor Signal	II	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.5	GN / WH	1162	Accelerator Pedal Position Signal 2	II	—
45	0.5	BN / RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
46	—	—	—	Not Occupied	—	—
47	0.5	VT / GN	439	Run/Crank Ignition 1 Voltage	II	—
48	0.75	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	II	—
49	2.5	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	I	—

K20 Engine Control Module X1 (LV1)



5663663

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 35500079
Service Connector: 19368142
Description: 49-Way F 0.64, 2.8 Series, Sealed(BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19351723	J-35616-64B (L-BU)	J-38125-213

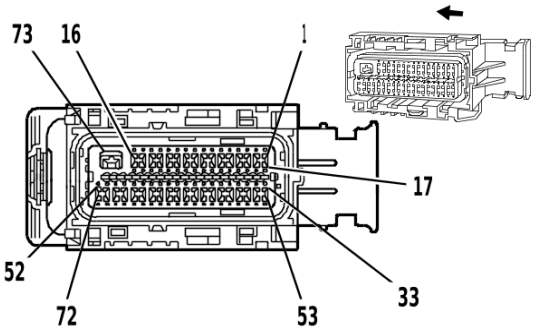
K20 Engine Control Module X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / WH	492	Mass Air Flow Sensor Signal	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	WH / BU	6311	Cruise/ETC/TCC Brake Signal	II	—
7	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
8	0.5	BN / WH	419	Check Engine Indicator Control	II	—
9	0.5	BN	5991	Powertrain Relay Coil Control	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.5	BU / GY	636	Ambient Air Temperature Sensor Signal	II	—
13	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	II	—
14	0.5	WH / GN	5380	Brake Position Sensor Signal	II	—
15 - 16	—	—	—	Not Occupied	—	—
17	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
18	0.5	WH / GY	459	Air Conditioning Compressor Clutch Relay Control	II	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	GN / BU	428	EVAP Canister Purge Solenoid Control	II	—
22	—	—	—	Not Occupied	—	—
23	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	II	—
24	0.5	BK / BU	1271	Accelerator Pedal Position Low Reference 1	II	—

K20 Engine Control Module X1 (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25 - 26	—	—	—	Not Occupied	—	—
27	0.5	GN / YE	3337	Transmission Internal Mode Switch Mode Control Y	II	—
28	0.5	BN / GN	1174	Oil Level Switch Signal	II	—
29	—	—	—	Not Occupied	—	—
30	0.5	BK / VT	1272	Accelerator Pedal Position Low Reference 2	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	II	—
33	0.5	VT / YE	5985	Accessory Wake-Up Serial Data	II	—
34	0.5	RD / WH	140	Battery Positive Voltage	II	—
35	—	—	—	Not Occupied	—	—
36	0.5	YE / BK	625	Starter Enable Relay Control	II	—
37	0.5	GN / GY	465	Fuel Pump Primary Relay Control	II	—
38	0.5	WH / RD	1164	Accelerator Pedal Position 5V Reference 1	II	—
39	0.5	YE / WH	1161	Accelerator Pedal Position Signal 1	II	—
40	0.5	YE / BN	331	Oil Pressure Sensor Signal	II	—
41	0.5	GN	380	Air Conditioning Refrigerant Pressure Sensor Signal	II	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.5	GN / WH	1162	Accelerator Pedal Position Signal 2	II	—
45	0.5	BN / RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
46	—	—	—	Not Occupied	—	—
47	0.5	VT / GN	439	Run/Crank Ignition 1 Voltage	II	—
48	0.75	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	II	—
49	2.5	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	I	—

K20 Engine Control Module X2



1673472

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 35386331
Service Connector: 19333090
Description: 73-Way F 0.64, 2.8 Series, Sealed(BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (L-BU)	J-38125-215A
II	19368324	J-35616-35 (VT)	J-38125-11A

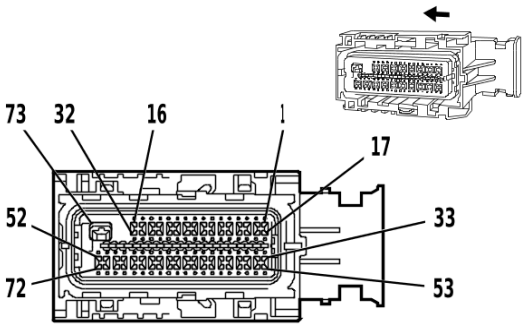
K20 Engine Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / YE	3212	HO2S Heater Low Control Bank 2 Sensor 1	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5	GN / WH	4622	Engine Control Module LIN Bus 2	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	VT / GY	3110	HO2S High Signal Bank 1 Sensor 1	I	—
11	0.5	WH / BK	3111	HO2S Low Signal Bank 1 Sensor 1	I	—
12	0.5	YE / BU	2124	Ignition Control 4	I	—
13	0.5 0.5	BN / BU GN / BU	2126 2123	Ignition Control 6 Ignition Control 3	I I	L8T LV1
14 - 16	—	—	—	Not Occupied	—	—
17	0.5	GY / WH	3113	HO2S Heater Low Control Bank 1 Sensor 1	I	—
18 - 25	—	—	—	Not Occupied	—	—
26	0.5	VT / WH	3210	HO2S High Signal Bank 2 Sensor 1	I	—
27	0.5	YE / WH	3211	HO2S Low Signal Bank 2 Sensor 1	I	—
28	0.5	GN / BU	2123	Ignition Control 3	I	—
29	0.5 0.5	BU / GY BU / WH	2125 2122	Ignition Control 5 Ignition Control 2	I I	L8T LV1
30	0.5	BK / GY	2130	Ignition Control Low Reference Bank 2	I	—
31 - 32	—	—	—	Not Occupied	—	—

K20 Engine Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
33	0.5	WH / BN	3223	HO2S Heater Low Control Bank 2 Sensor 2	I	—
34	—	—	—	Not Occupied	—	—
35	0.5	BU	179	Engine Oil Pump Control	I	—
36	—	—	—	Not Occupied	—	—
37	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
38	—	—	—	Not Occupied	—	—
39	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—
40 - 45	—	—	—	Not Occupied	—	—
46	0.5	YE / BU	3221	HO2S Low Signal Bank 2 Sensor 2	I	—
47	0.5	VT / GN	3220	HO2S High Signal Bank 2 Sensor 2	I	—
48 - 49	—	—	—	Not Occupied	—	—
50	0.75	BK / GY	2303	Knock Sensor Low Reference 2	I	—
51	0.75	BK / YE	1716	Knock Sensor Low Reference 1	I	—
52	0.5	BN / WH	582	Throttle Actuator Close Control	I	—
53	0.5	GY / WH	3122	HO2S Heater Low Control Bank 1 Sensor 2	I	—
54 - 58	—	—	—	Not Occupied	—	—
59	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
60 - 65	—	—	—	Not Occupied	—	—
66	0.5	WH / YE	3121	HO2S Low Signal Bank 1 Sensor 2	I	—
67	0.5	VT / BU	3120	HO2S High Signal Bank 1 Sensor 2	I	—
68 - 69	—	—	—	Not Occupied	—	—
70	0.75	WH / GY	1876	Knock Sensor 2 Signal	I	—
71	0.75	VT / GY	496	Knock Sensor 1 Signal	I	—
72	0.5	YE	581	Throttle Actuator Open Control	I	—
73	3	BK / WH	1551	Signal Ground	II	—

K20 Engine Control Module X3



1650395

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 35505841
Service Connector: 19333091
Description: 73-Way F 0.64, 2.8 Series, Sealed(BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (L-BU)	J-38125-215A
II	19368324	J-35616-35 (VT)	J-38125-11A

K20 Engine Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	—	—	—	Not Occupied	—	—
5	0.5	VT / BN	5284	Intake Camshaft Position Actuator Solenoid Valve 1	I	—
6	0.5	VT / GN	4320	Powertrain Sensor Bus Enable	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	YE / VT	5275	Intake Camshaft Position Sensor 1	I	—
9	0.5	GY / BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	I	—
10	0.5	GN	6271	Crankshaft Position Sensor Signal	I	—
11	—	—	—	Not Occupied	—	—
12	0.5	BU / WH	2122	Ignition Control 2	I	L8T
	0.5	YE / BU	2124	Ignition Control 4	I	LV1
13	0.5	VT / WH	2128	Ignition Control 8	I	L8T
	0.5	BN / BU	2126	Ignition Control 6	I	LV1
14	0.5	BN	25	Charge Indicator Control	I	—
15	—	—	—	Not Occupied	—	—
16	0.75	YE	7301	High Pressure Fuel Pump High Control	I	—
17 - 20	—	—	—	Not Occupied	—	—
21	0.5	BK / BN	6753	Camshaft Position Actuator Solenoid Valve W Low Reference	I	—
22 - 23	—	—	—	Not Occupied	—	—
24	0.5	BK / GN	5301	Intake Camshaft Position Sensor Low Reference 1	I	—

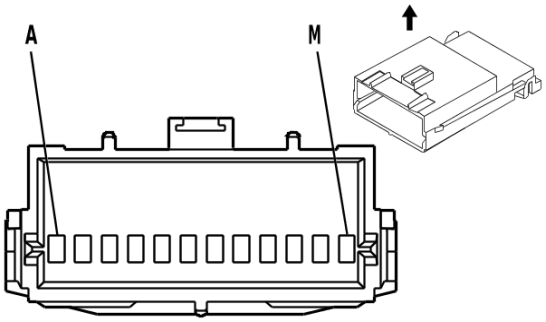
K20 Engine Control Module X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	0.5	VT / BU	6270	Crankshaft Position Sensor Voltage	I	—
26	0.5	BK / VT	6272	Crankshaft Position Sensor Low Reference	I	—
27	—	—	—	Not Occupied	—	—
28	0.5 0.5	GN / GY BU / GY	2127 2125	Ignition Control 7 Ignition Control 5	I I	L8T LV1
29	0.5	BU / VT	2121	Ignition Control 1	I	—
30	0.5	BK / BU	2129	Ignition Control Low Reference Bank 1	I	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT / BK	7300	High Pressure Fuel Pump Low Control	I	—
33 - 35	—	—	—	Not Occupied	—	—
36	0.5	BK / BN	2752	Throttle Position Sensor Low Reference	I	—
37	0.5	BK / GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
38 - 39	—	—	—	Not Occupied	—	—
40	0.5	BN / BU	357	Oil Temperature Sensor Signal	I	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference 1	I	—
44	0.75	VT / BU	5292	Powertrain Main Relay Fused Supply Voltage 3	I	—
45	0.75	GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	I	—
46	0.75	GY / BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	I	—
47	0.75 0.75	WH / GN BU	4805 4802	Direct Fuel Injector High Voltage Control Cylinder 5 Direct Fuel Injector High Voltage Control Cylinder 2	I I	L8T LV1
48	0.75 0.75	VT / GN GN	4806 4803	Direct Fuel Injector High Voltage Control Cylinder 6 Direct Fuel Injector High Voltage Control Cylinder 3	I I	L8T LV1
49	0.75 0.75	BU GY / BU	4802 4804	Direct Fuel Injector High Voltage Control Cylinder 2 Direct Fuel Injector High Voltage Control Cylinder 4	I I	L8T LV1
50	0.75 0.75	YE / GY WH / GN	4807 4805	Direct Fuel Injector High Voltage Control Cylinder 7 Direct Fuel Injector High Voltage Control Cylinder 5	I I	L8T LV1
51	0.75 0.75	GY VT / GN	4808 4806	Direct Fuel Injector High Voltage Control Cylinder 8 Direct Fuel Injector High Voltage Control Cylinder 6	I I	L8T LV1
52	0.75	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	I	—
53 - 54	—	—	—	Not Occupied	—	—
55	0.5	BN / RD	2701	Throttle Position Sensor 5V Reference	I	—
56	0.5	BU / WH	3630	Throttle Position Sensor SENT 1 Signal	I	—
57	0.5	GY / RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
58	0.5	GN / WH	432	Manifold Absolute Pressure Sensor Signal	I	—
59 - 60	—	—	—	Not Occupied	—	—

K20 Engine Control Module X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
61	0.5	BU	410	Engine Coolant Temperature Sensor Signal	I	—
62	—	—	—	Not Occupied	—	—
63	0.5	BU / WH	10786	Fuel Rail Pressure Sensor SENT 1 Signal	I	—
64	0.5	GY	23	Generator Field Duty Cycle Signal	I	—
65	0.75	GN / GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	I	—
66	0.75	BU / WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	I	—
67	0.75 0.75	GN / WH BU / GY	4905 4902	Direct Fuel Injector High Voltage Supply Cylinder 5 Direct Fuel Injector High Voltage Supply Cylinder 2	I I	L8T LV1
68	0.75 0.75	VT / GY GN / GY	4906 4903	Direct Fuel Injector High Voltage Supply Cylinder 6 Direct Fuel Injector High Voltage Supply Cylinder 3	I I	L8T LV1
69	0.75 0.75	BU / GY BU / WH	4902 4904	Direct Fuel Injector High Voltage Supply Cylinder 2 Direct Fuel Injector High Voltage Supply Cylinder 4	I I	L8T LV1
70	0.75 0.75	WH / YE GN / WH	4907 4905	Direct Fuel Injector High Voltage Supply Cylinder 7 Direct Fuel Injector High Voltage Supply Cylinder 5	I I	L8T LV1
71	0.75 0.75	GY / WH VT / GY	4908 4906	Direct Fuel Injector High Voltage Supply Cylinder 8 Direct Fuel Injector High Voltage Supply Cylinder 6	I I	L8T LV1
72	0.75	BN / WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	I	—
73	3	BK / WH	1551	Signal Ground	II	—

K33A HVAC Control Module - Auxiliary



328486

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 12040747
Service Connector: 12101938
Description: 12-Way F P/C Edgeboard Standard Series(BK)

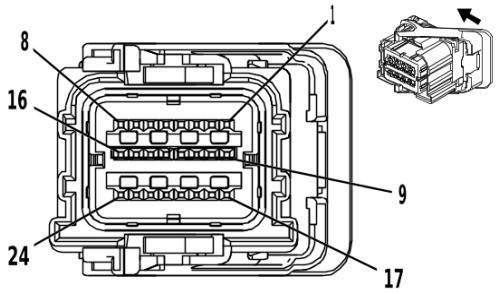
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19330178	J-35616-4A (PU)	J-38125-12A

K33A HVAC Control Module - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	PU	5260	Auxiliary HVAC Front Temperature Signal	I	—
B	0.35	OG	2775	Rear Air Temperature Door Actuator Control	I	—
C	0.5	BN	5263	Auxiliary HVAC Rear Temperature Signal	I	—
D	0.5	PU / WH	5264	Auxiliary HVAC Rear Mode Signal	I	—
E	0.35	TN	5261	Auxiliary HVAC Front Mode Signal	I	—
F	0.35	GY	2599	Rear Mode Door Actuator Signal	I	—
G	—	—	—	Not Occupied	—	—
H	0.35	BK	1850	Ground	I	—
J	0.35	BN	341	Run Ignition 3 Voltage	I	—
K	—	—	—	Not Occupied	—	—
L	0.5	PK / BK	5265	Auxiliary HVAC Rear Control Signal	I	—
M	0.35	YE	5262	Auxiliary HVAC Rear Controls Enable Signal	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1



3240106

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 2098924-8
Service Connector: 13579314
Description: 24-Way F 0.64 Series, Sealed(YE)

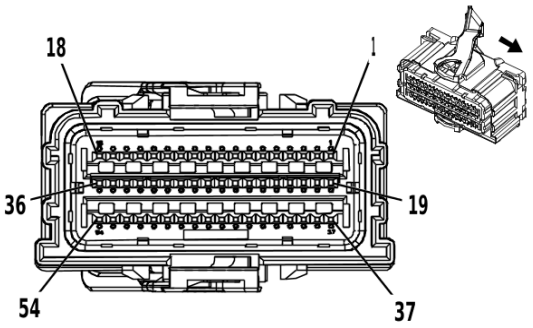
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19367373	J-35616-64B (L-BU)	J-38125-215A

K36 Inflatable Restraint Sensing and Diagnostic Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BN	3020	Steering Wheel Air Bag Stage 1 Low Control	I	—
4	0.5	TN	3021	Steering Wheel Air Bag Stage 1 High Control	I	—
5	0.5	YE	3025	Passenger Instrument Panel Air Bag Stage 1 High Control	I	—
6	0.5	OG	3024	Passenger Instrument Panel Air Bag Stage 1 Low Control	I	—
7 - 8	—	—	—	Not Occupied	—	—
9	0.5	RD / WH	3440	Battery Positive Voltage	I	—
10 - 12	—	—	—	Not Occupied	—	—
13	0.5	PK	353	Passenger Supplemental Inflatable Restraint Suppression Indicator Control	I	—
14	0.5	TN / BK	371	Passenger Supplemental Inflatable Restraint Disable Switch Signal	I	—
15	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
16	—	—	—	Not Occupied	—	—
17	0.35	PK	1139	Run/Crank Ignition 1 Voltage	I	—
18	—	—	—	Not Occupied	—	—
19	0.5	BK / WH	1751	Signal Ground	I	—
20 - 24	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2



2817420

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 2098922-9
Service Connector: 86579820
Description: 54-Way F 0.64 Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19328872	J-35616-64B (L-BU)	J-38125-11A

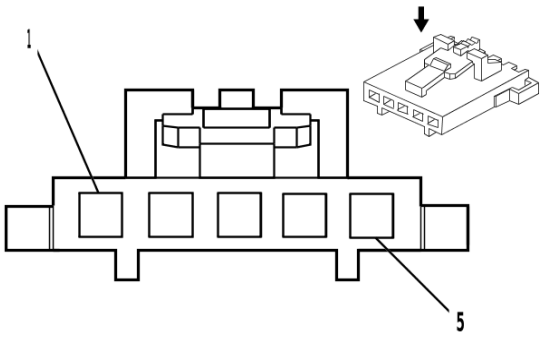
K36 Inflatable Restraint Sensing and Diagnostic Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 10	—	—	—	Not Occupied	—	—
11	0.5	TN / BK	7016	Right Rear Roof Rail Air Bag Low Control	I	—
12	0.5	BU	7015	Right Rear Roof Rail Air Bag High Control	I	—
13	0.5	BN	2137	Left Front Seat Side Air Bag High Control	I	—
14	0.5	YE / BK	2138	Left Front Seat Side Air Bag Low Control	I	—
15	0.5	GN	2136	Right Front Seat Side Air Bag Low Control	I	—
16	0.5	TN / WH	2135	Right Front Seat Side Air Bag High Control	I	—
17	0.5	PU / WH	5019	Left Front Roof Rail Air Bag High Control	I	—
18	0.5	PK	5020	Left Front Roof Rail Air Bag Low Control	I	—
19	0.5	WH	2132	Left Front Side Impact Sensor Signal	I	—
20	0.5	PU / WH	6628	Left Front Side Impact Sensor Low Reference	I	—
21	0.5	WH / BK	6629	Right Front Side Impact Sensor Low Reference	I	—
22	0.5	GN	2134	Right Front Side Impact Sensor Signal	I	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.5	BU / WH	6619	Front Middle Impact Discriminating Sensor Low Reference	I	—
26	0.5	BN / WH	6618	Front Middle Impact Discriminating Sensor Signal	I	—
27	0.5	GN / WH	6620	Left Middle Side Impact Sensor Signal	I	—
28	0.5	GY / BK	6621	Left Middle Side Impact Sensor Low Reference	I	—
29	0.5	GN / WH	6625	Right Middle Side Impact Sensor Low Reference	I	—
30	0.5	BU / BK	6624	Right Middle Side Impact Sensor Signal	I	—
31 - 36	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
37	0.5	TN / WH	2118	Driver Seat Belt Pretensioner High Control	I	—
38	0.5	OG / BK	2119	Driver Seat Belt Pretensioner Low Control	I	—
39	0.5	OG	2117	Passenger Seat Belt Pretensioner Low Control	I	—
40	0.5	GN	2116	Passenger Seat Belt Pretensioner High Control	I	—
41	0.5	TN / WH	238	Driver Seat Belt Switch Signal	I	—
42	—	—	—	Not Occupied	—	—
43	0.5	PK	5057	Seat Position Switch Low Reference	I	—
44 - 52	—	—	—	Not Occupied	—	—
53	0.5	YE / BK	5021	Right Front Roof Rail Air Bag High Control	I	—
54	0.5	WH / BK	5022	Right Front Roof Rail Air Bag Low Control	I	—

K64 Content Theft Deterrent Control Module



1593355

Connector Part Information

Harness Type: Steering Column
OEM Connector: 15383337
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way F SL Series(BK)

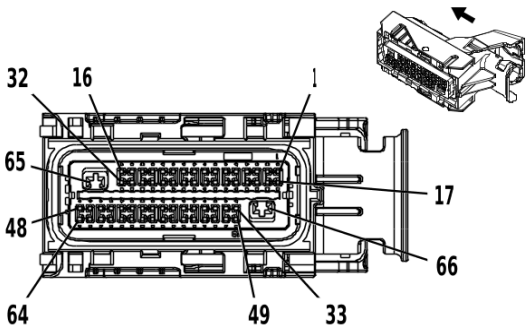
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K64 Content Theft Deterrent Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	RD / WH	540	Battery Positive Voltage	I	—
2	—	BN	4	Accessory Ignition Voltage	I	—
3	—	BK / WH	351	Signal Ground	I	—
4	—	GN	5060	Low Speed GMLAN Serial Data	I	—
5	—	—	—	Not Occupied	—	—

K71 Transmission Control Module (L8T)



3621452

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34822-0013
Service Connector: 19329822
Description: 66-Way F 0.64, 2.8 Series, Sealed(BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19351723	J-35616-64B (L-BU)	J-38125-213

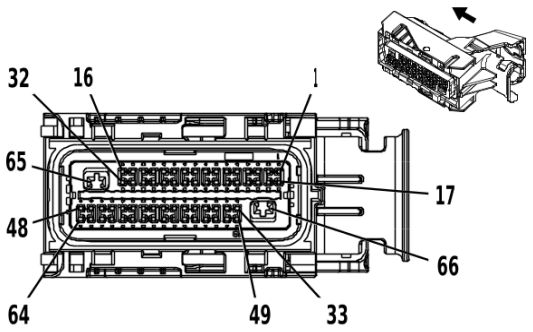
K71 Transmission Control Module (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BU	4507	Transmission Clutch H Control	II	—
2	0.5	BU	6401	Clutch Solenoid Valve B Control	II	—
3	0.5	GN / WH	1530	Transmission Line Pressure Control Solenoid Valve Control	II	—
4	—	—	—	Not Occupied	—	—
5	0.5	GY / RD	10817	Lubricant Circuit Pressure Sensor 5 Volt Reference	II	—
6	—	—	—	Not Occupied	—	—
7	0.5	YE / GN	4170	Transmission Output Shaft Speed Sensor Circuit 9V Reference	II	—
8	0.5	YE / BU	4171	Transmission Input Shaft Speed Sensor Circuit 9V Reference	II	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.5	BU / BK	10819	Lubricant Circuit Pressure Sensor Low Reference	II	—
12	—	—	—	Not Occupied	—	—
13	0.5	GN / VT	4510	Transmission Intermediate Speed Signal	II	—
14	0.5	GY / BU	6358	Output Speed Signal	II	—
15	0.5	GN / YE	6353	Input Speed Signal	II	—
16	—	—	—	Not Occupied	—	—
17	0.5	WH	4508	Transmission Clutch G Control	II	—
18	0.5	BN	6400	Clutch Solenoid Valve A Control	II	—
19	0.5	GY	6402	Clutch Solenoid Valve C Control	II	—

K71 Transmission Control Module (L8T) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	0.5	VT / WH	422	Torque Converter Clutch Solenoid Valve Control	II	—
21	0.5	GN / WH	6380	Torque Converter Clutch Enable Solenoid Valve A Control	II	—
22	0.5	YE / BN	6210	Torque Converter Clutch Enable Solenoid Valve B Control	II	—
23 - 27	—	—	—	Not Occupied	—	—
28	0.5	BK / BN	586	Transmission Fluid Temperature Sensor Low Reference	II	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.5	GN / GY	6387	Transmission High Side Driver 1 Control	II	—
34	—	—	—	Not Occupied	—	—
35	0.5	VT / BK	2139	Run/Crank Ignition 1 Voltage	II	—
36	—	—	—	Not Occupied	—	—
37	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
38	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
39 - 44	—	—	—	Not Occupied	—	—
45	0.5	GN / YE	10816	Lubricant Circuit Pressure Sensor Signal	II	—
46 - 48	—	—	—	Not Occupied	—	—
49	0.5	GY / BN	6388	Transmission High Side Driver 2 Control	II	—
50	—	—	—	Not Occupied	—	—
51	0.5	VT / YE	5985	Accessory Wake-Up Serial Data	II	—
52	—	—	—	Not Occupied	—	—
53	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
54	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
55 - 62	—	—	—	Not Occupied	—	—
63	0.5	BN / WH	585	Transmission Fluid Temperature Sensor Signal	II	—
64	0.5	BU / WH	3338	Transmission Internal Mode Switch Mode Control X	II	—
65	1.5	BK / WH	1551	Signal Ground	I	—
66	1.5	RD / GN	1840	Battery Positive Voltage	I	—

K71 Transmission Control Module (LV1)



3621452

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34822-0013
Service Connector: 19329822
Description: 66-Way F 0.64, 2.8 Series, Sealed(BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19351723	J-35616-64B (L-BU)	J-38125-213

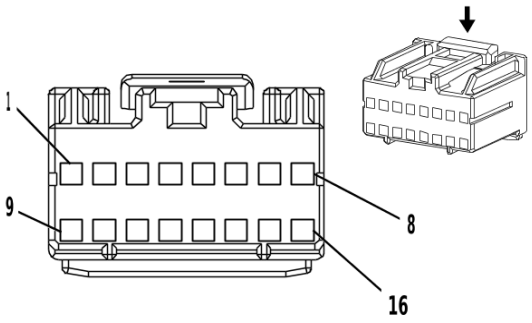
K71 Transmission Control Module (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BU	4507	Transmission Clutch H Control	II	—
2	0.5	BU	6401	Clutch Solenoid Valve B Control	II	—
3	0.5	GN / WH	1530	Transmission Line Pressure Control Solenoid Valve Control	II	—
4	—	—	—	Not Occupied	—	—
5	0.5	GY / RD	10817	Lubricant Circuit Pressure Sensor 5 Volt Reference	II	—
6	—	—	—	Not Occupied	—	—
7	0.5	YE / GN	4170	Transmission Output Shaft Speed Sensor Circuit 9V Reference	II	—
8	0.5	YE / BU	4171	Transmission Input Shaft Speed Sensor Circuit 9V Reference	II	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.5	BU / BK	10819	Lubricant Circuit Pressure Sensor Low Reference	II	—
12	—	—	—	Not Occupied	—	—
13	0.5	GN / VT	4510	Transmission Intermediate Speed Signal	II	—
14	0.5	GY / BU	6358	Output Speed Signal	II	—
15	0.5	GN / YE	6353	Input Speed Signal	II	—
16	—	—	—	Not Occupied	—	—
17	0.5	WH	4508	Transmission Clutch G Control	II	—
18	0.5	BN	6400	Clutch Solenoid Valve A Control	II	—
19	0.5	GY	6402	Clutch Solenoid Valve C Control	II	—

K71 Transmission Control Module (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	0.5	VT / WH	422	Torque Converter Clutch Solenoid Valve Control	II	—
21	0.5	GN / WH	6380	Torque Converter Clutch Enable Solenoid Valve A Control	II	—
22	0.5	YE / BN	6210	Torque Converter Clutch Enable Solenoid Valve B Control	II	—
23 - 27	—	—	—	Not Occupied	—	—
28	0.5	BK / BN	586	Transmission Fluid Temperature Sensor Low Reference	II	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.5	GN / GY	6387	Transmission High Side Driver 1 Control	II	—
34	—	—	—	Not Occupied	—	—
35	0.5	VT / BK	2139	Run/Crank Ignition 1 Voltage	II	—
36	—	—	—	Not Occupied	—	—
37	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
38	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
39 - 44	—	—	—	Not Occupied	—	—
45	0.5	GN / YE	10816	Lubricant Circuit Pressure Sensor Signal	II	—
46 - 48	—	—	—	Not Occupied	—	—
49	0.75	GY / BN	6388	Transmission High Side Driver 2 Control	II	—
50	—	—	—	Not Occupied	—	—
51	0.5	VT / YE	5985	Accessory Wake-Up Serial Data	II	—
52	—	—	—	Not Occupied	—	—
53	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
54	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
55 - 62	—	—	—	Not Occupied	—	—
63	0.5	BN / WH	585	Transmission Fluid Temperature Sensor Signal	II	—
64	0.5	BU / WH	3338	Transmission Internal Mode Switch Mode Control X	II	—
65	1.5	BK / WH	1551	Signal Ground	I	—
66	1.5	RD / GN	1840	Battery Positive Voltage	I	—

K73 Telematics Communication Interface Control Module X1



1471689

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15431362
Service Connector: 15306351
Description: 16-Way F 100A Micro-Pack Series(NA)

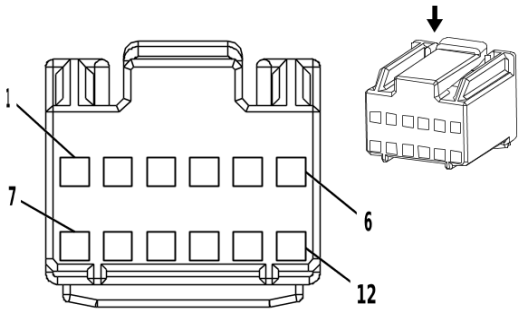
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575546	J-35616-16 (L-GN)	J-38125-559
II	13575548	J-35616-16 (L-GN)	J-38125-559

K73 Telematics Communication Interface Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
2	0.8	BN / WH	2517	Telematics Switch Red LED Indicator Control	II	—
3	0.8	YE / BK	2516	Telematics Switch Green LED Indicator Control	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.8	GN / BK	2515	Telematics Switch Supply Voltage	II	—
7	0.8	BK / WH	351	Signal Ground	II	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
11	0.8	GN / WH	2514	Telematics Switch Signal	II	—
12	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
13 - 14	—	—	—	Not Occupied	—	—
15	0.8	RD / WH	3240	Battery Positive Voltage	II	—
16	—	—	—	Not Occupied	—	—

K73 Telematics Communication Interface Control Module X2



1471691

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15431365
Service Connector: 88952886
Description: 12-Way F 100A Micro-Pack Series(NA)

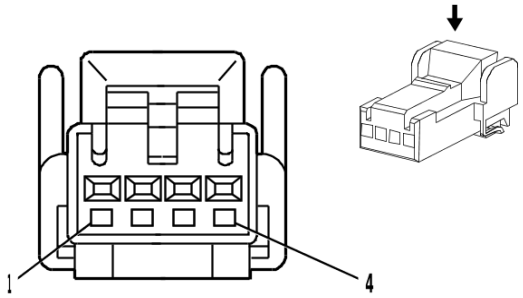
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578873	J-35616-64B (L-BU)	J-38125-559

K73 Telematics Communication Interface Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	BU	658	Cellular Telephone Voice Signal	I	—
2	0.8	BU / BK	659	Cellular Telephone Voice Low Reference	I	—
3	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
4	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
5 - 7	—	—	—	Not Occupied	—	—
8	0.8	Bare	1792	Low Reference	I	—
9	0.8	GY	655	Cellular Telephone Microphone Signal	I	—
10	0.8	GN	654	Cellular Telephone Microphone Low Reference	I	—
11 - 12	—	—	—	Not Occupied	—	—

K77 Remote Control Door Lock Receiver



1673483

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: IL-AG5-4S-S3C1
Service Connector: 13585474
Description: 4-Way F IL-AG5 Series(GN)

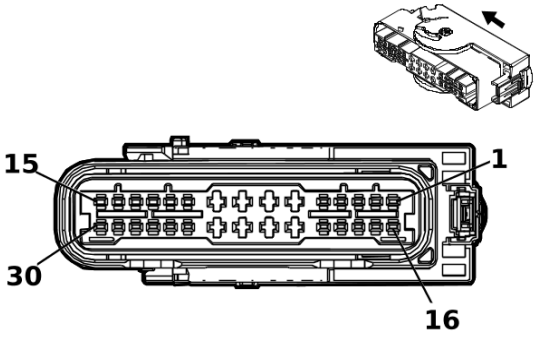
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K77 Remote Control Door Lock Receiver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD / WH	5340	Battery Positive Voltage	I	—
2	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	BK / WH	351	Signal Ground	I	—

K111 Fuel Pump Driver Control Module



3240109

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 5-2109446-2
Service Connector: Service by Harness - See Part Catalog
Description: 30-Way F 1.5, 2.8 MCP Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	Not required	J-35616-4A (PU)	No Tool Required

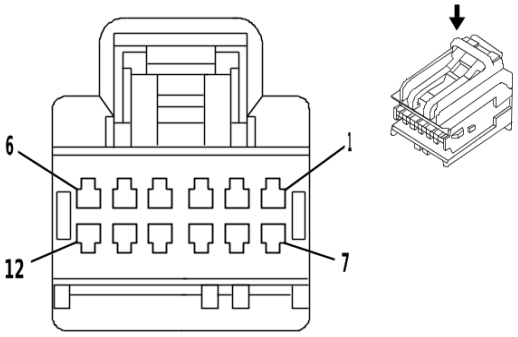
K111 Fuel Pump Driver Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 6	—	—	—	Not Occupied	—	—
7	2.5	RD / VT	1940	Battery Positive Voltage	II	—
8	2.5	GY	120	Fuel Pump Control	II	—
9	2.5	YE / GY	4137	Fuel Pump Supply Voltage Phase 2	II	—
10	0.5	YE / RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—
11	0.5	BU / WH	890	Fuel Tank Pressure Sensor Signal	I	—
12	0.5	BN / RD	7445	Fuel Line Pressure Sensor 5V Reference	I	—
13	0.5	BU / VT	1589	Primary Fuel Level Sensor Signal	I	—
14	—	—	—	Not Occupied	—	—
15	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	I	—
16	0.5	VT / GN	4320	Powertrain Sensor Bus Enable	I	—
17	0.5	VT	2739	Run/Crank Ignition 1 Voltage	I	—
18	0.5	GN / GY	465	Fuel Pump Primary Relay Control	I	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	WH	1310	EVAP Vent Solenoid Valve Control	III	—
22	2.5	BK	2150	Ground	II	—
23	0.5	BK	7444	Fuel Pump Assembly Shield Ground	III	—
24	2.5	WH / BN	4138	Fuel Pump Supply Voltage Phase 3	II	—
25	0.5	BK / BN	6284	Fuel Tank Pressure Sensor Low Reference	I	—
26	0.5	BU / WH	7446	Fuel Pressure Sensor Signal	I	—

K111 Fuel Pump Driver Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
27	0.5	BK / YE	7447	Fuel Pressure Sensor Low Reference	I	—
28	0.5	BK / GN	6281	Fuel Level Sensor Low Reference	I	—
29	—	—	—	Not Occupied	—	—
30	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	I	—

K182 Parking Assist Control Module X1



1664569

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13784026
Service Connector: 13525987
Description: 12-Way F 0.64 Series(BK)

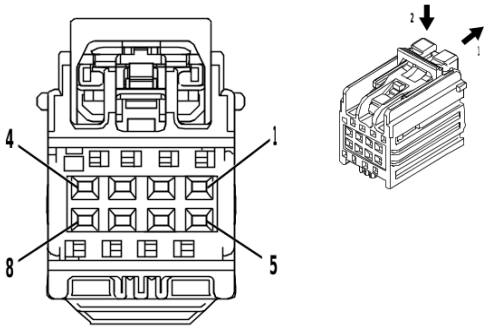
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13584547	J-35616-64B (L-BU)	J-38125-215A

K182 Parking Assist Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD / WH	840	Battery Positive Voltage	I	—
2 - 5	—	—	—	Not Occupied	—	—
6	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
7	0.5	BK / WH	351	Signal Ground	I	—
8 - 12	—	—	—	Not Occupied	—	—

K182 Parking Assist Control Module X2



4280711

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 7289-2895-40
Service Connector: 19355209
Description: 8-Way F 0.64 Kaizen Series(GY)

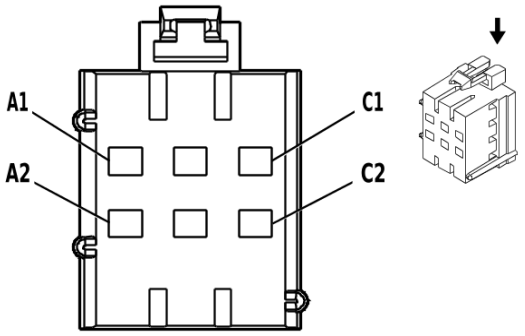
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K182 Parking Assist Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / VT	2378	Right Rear Outer Parking Assist Sensor Signal	I	—
2	0.5	YE / WH	2377	Right Rear Middle Parking Assist Sensor Signal	I	—
3	0.5	YE / BU	2376	Left Rear Middle Parking Assist Sensor Signal	I	—
4	0.5	BN / WH	2374	Object Sensor Voltage Reference	I	—
5	0.5	YE	2375	Left Rear Outer Parking Assist Sensor Signal	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5	BK / GY	2379	Object Sensor Low Reference	I	—

KR32B Blower Motor High Speed Relay - Auxiliary



309518

Connector Part Information

Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
OEM Connector: 12129715
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Flexlock Series(GY)

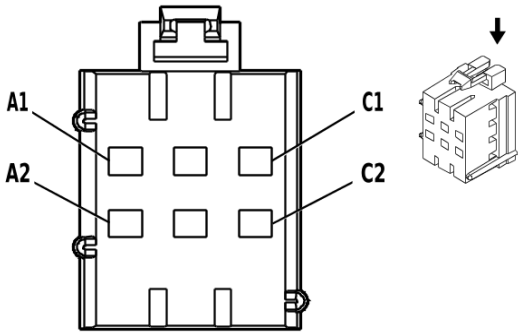
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

KR32B Blower Motor High Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
A2	5	YE	1172	Auxiliary Blower Motor Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD / WH	1740	Battery Positive Voltage	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage	I	—

KR32C Blower Motor Low Speed Relay - Auxiliary



309518

Connector Part Information

Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
OEM Connector: 12129715
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Flexlock Series(GY)

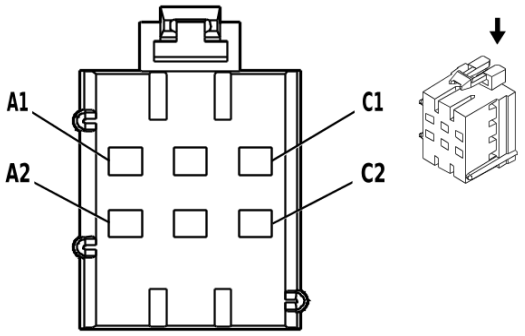
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

KR32C Blower Motor Low Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
A2	3	YE	1176	Auxiliary Blower Motor Low Speed Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD / WH	1740	Battery Positive Voltage	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage	I	—

KR32D Blower Motor Medium Speed Relay - Auxiliary



309518

Connector Part Information

Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
OEM Connector: 12129715
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Flexlock Series(GY)

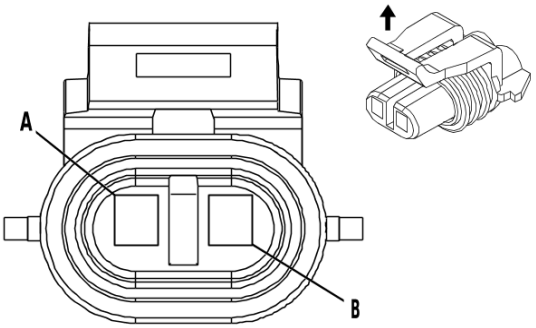
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

KR32D Blower Motor Medium Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
A2	3	BU	1072	Auxiliary Blower Motor Medium Speed Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD / WH	1740	Battery Positive Voltage	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage	I	—

KR81 Auxiliary Battery Relay 1 X1 (L8T)



635009

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

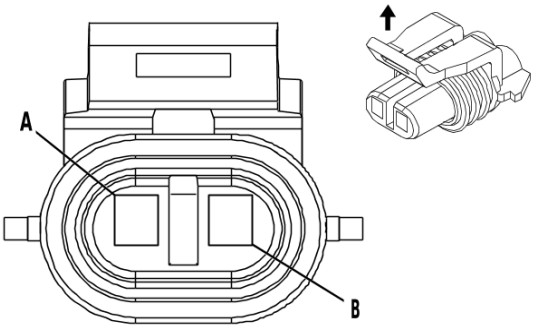
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

KR81 Auxiliary Battery Relay 1 X1 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	RD / WH	4892	Auxiliary Battery Relay Control	I	—
B	0.75	BK / WH	1551	Signal Ground	I	—

KR81 Auxiliary Battery Relay 1 X1 (LV1)



635009

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

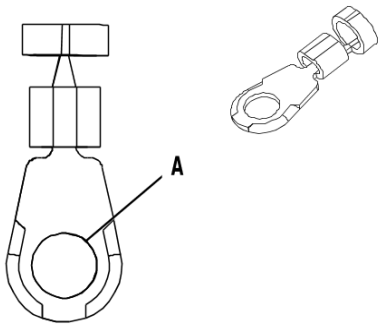
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

KR81 Auxiliary Battery Relay 1 X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	RD / WH	4892	Auxiliary Battery Relay Control	I	—
B	0.75	BK / WH	1551	Signal Ground	I	—

KR81 Auxiliary Battery Relay 1 X2 (LV1 / L8T)



3385519

Connector Part Information

Harness Type: Battery Positive Cable
OEM Connector: 12146365
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

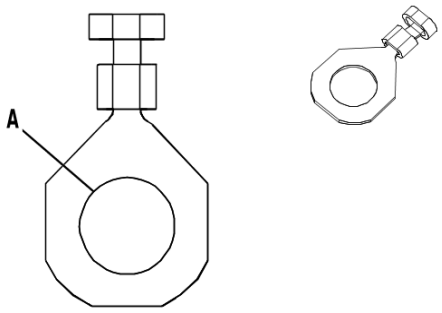
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

KR81 Auxiliary Battery Relay 1 X2 (LV1 / L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

KR81 Auxiliary Battery Relay 1 X3 (9L7)



3240148

Connector Part Information

Harness Type: Accessory Wiring Harness
OEM Connector: 12103504
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

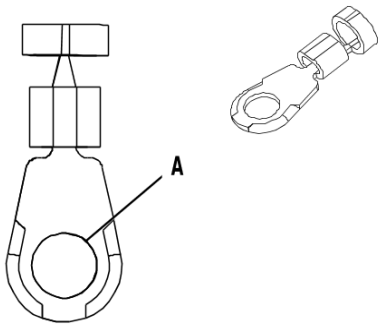
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

KR81 Auxiliary Battery Relay 1 X3 (9L7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	RD	102	Battery Positive Voltage	I	—

KR81 Auxiliary Battery Relay 1 X3 (LV1 / L8T)



3385519

Connector Part Information

Harness Type: Auxiliary Battery Positive Cable
OEM Connector: 12146365
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

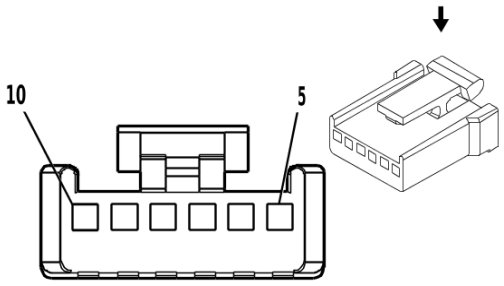
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

KR81 Auxiliary Battery Relay 1 X3 (LV1 / L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

M6 Air Temperature Door Actuator



281207

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12040953
Service Connector: 12102632
Description: 6-Way F 100 Micro-Pack Series(BK)

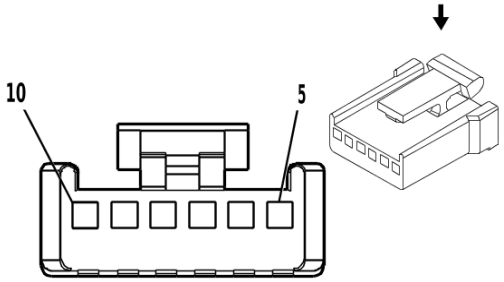
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-6 (BN)	No Tool Required

M6 Air Temperature Door Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
7	1	BK	550	Ground	I	—
8	0.8	BU	733	Air Temperature Door Position Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BN	341	Run Ignition 3 Voltage	I	—

M6B Air Temperature Door Actuator - Auxiliary



281207

Connector Part Information

Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
OEM Connector: 12040953
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 100 Micro-Pack Series(BK)

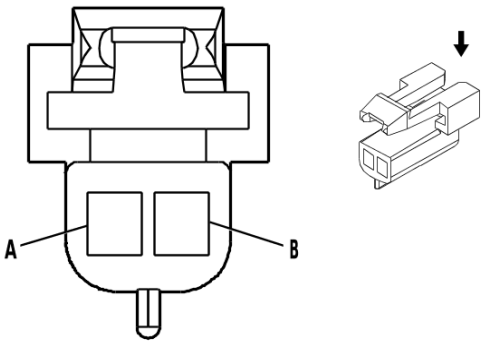
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-6 (BN)	No Tool Required

M6B Air Temperature Door Actuator - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
7	0.35	BK	850	Ground	I	—
8	0.35	OG	2775	Rear Air Temperature Door Actuator Control	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BN	341	Run Ignition 3 Voltage	I	—

M7 Transmission Shift Lock Control Solenoid Actuator



280768

Connector Part Information

Harness Type: Steering Column
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

M7 Transmission Shift Lock Control Solenoid Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	TN / WH	816	Brake Transmission Shift Interlock Solenoid Actuator Control	I	—
B	—	BK	350	Ground	I	—

M8 Blower Motor

—

Connector Part Information

Harness Type: HVAC
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

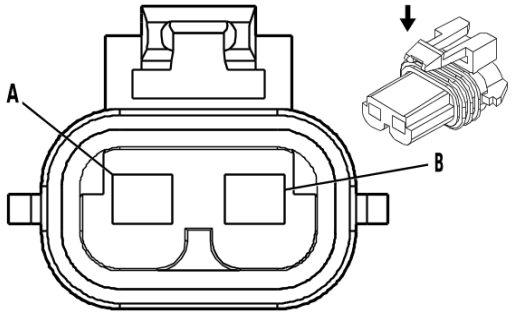
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M8 Blower Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BK	1250	Ground	I	—
B	—	RD	65	Blower Motor Control	I	—

M8B Blower Motor - Auxiliary



684799

Connector Part Information

Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
OEM Connector: 12077900
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

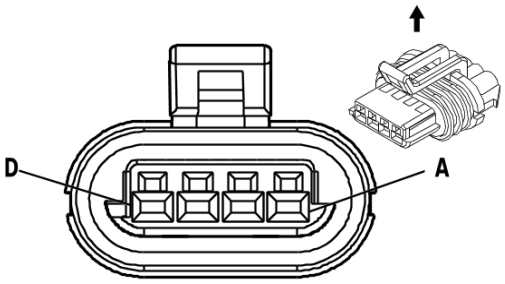
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M8B Blower Motor - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	BK	850	Ground	I	—
B	5	YE	1172	Auxiliary Blower Motor Control	I	—

M13 Door Latch Assembly - Rear Cargo X1



655858

Connector Part Information

Harness Type: Rear Door Door Wiring Harness
OEM Connector: 15336846
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed(BU)

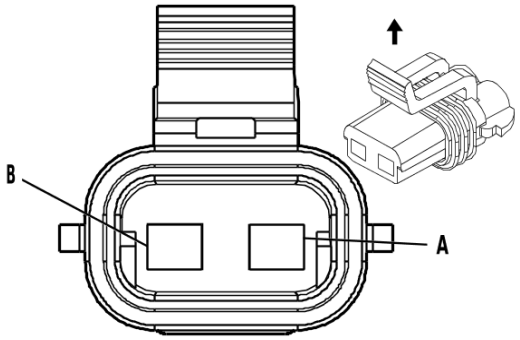
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

M13 Door Latch Assembly - Rear Cargo X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK / WH	1051	Signal Ground	I	—
B	—	—	—	Not Occupied	—	—
C	0.35	PK / BK	1303	Liftgate Ajar Switch Signal 1	I	—
D	0.35	GN	5926	Rear Body Opening Open Switch Signal	I	—

M13 Door Latch Assembly - Rear Cargo X2



68721

Connector Part Information

Harness Type: Rear Door Door Wiring Harness
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

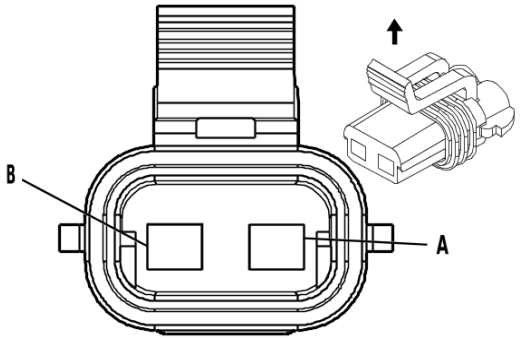
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M13 Door Latch Assembly - Rear Cargo X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	TN / BK	1095	Right Rear Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

M14RR Door Lock Actuator - Right Rear (E24)



68721

Connector Part Information

Harness Type: Rear Side Door Wiring Harness
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

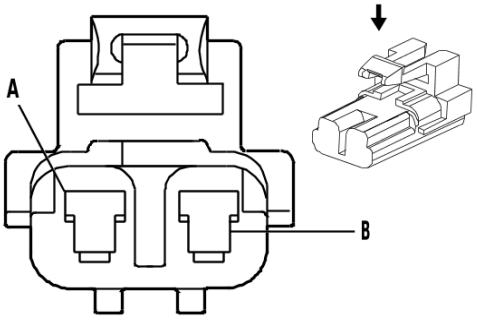
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M14RR Door Lock Actuator - Right Rear (E24)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

M14RR Door Lock Actuator - Right Rear (YA2)



62488

Connector Part Information

Harness Type: Rear Side Door Wiring Harness
OEM Connector: 12084957
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series(BK)

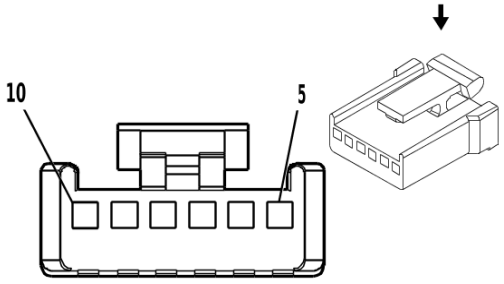
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M14RR Door Lock Actuator - Right Rear (YA2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	GY	295	Door Lock Actuator Lock Control	I	—
B	0.8	TN	294	Door Lock Actuator Unlock Control	I	—

M37B Mode Door Actuator - Auxiliary



281207

Connector Part Information

Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
OEM Connector: 12040953
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 100 Micro-Pack Series(BK)

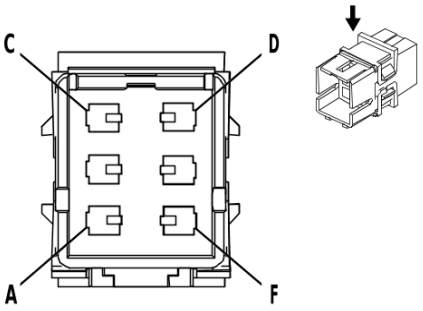
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-6 (BN)	No Tool Required

M37B Mode Door Actuator - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
7	0.35	BK	850	Ground	I	—
8	0.35	GY	2599	Rear Mode Door Actuator Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BN	341	Run Ignition 3 Voltage	I	—

M49D Seat Motor Assembly - Driver (AG1)



2684011

Connector Part Information

Harness Type: Driver Seat Motor Jumper
OEM Connector: 12015345
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M Weather Pack Series, Sealed(BK)

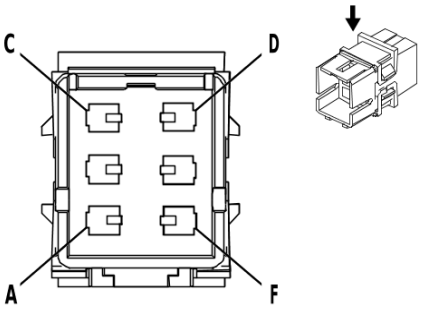
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M49D Seat Motor Assembly - Driver (AG1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	YE	282	Driver Seat Rear Vertical Motor Up Control	I	—
B	—	BU	283	Driver Seat Rear Vertical Motor Down Control	I	—
C	—	TN	285	Driver Seat Horizontal Motor Forward Control	I	—
D	—	GN	284	Driver Seat Horizontal Motor Rearward Control	I	—
E	—	GN	286	Driver Seat Front Vertical Motor Up Control	I	—
F	—	BU	287	Driver Seat Front Vertical Motor Down Control	I	—

M49P Seat Motor Assembly - Passenger (AG2)



2684011

Connector Part Information

Harness Type: Passenger Seat Motor Jumper
OEM Connector: 12015345
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M Weather Pack Series, Sealed(BK)

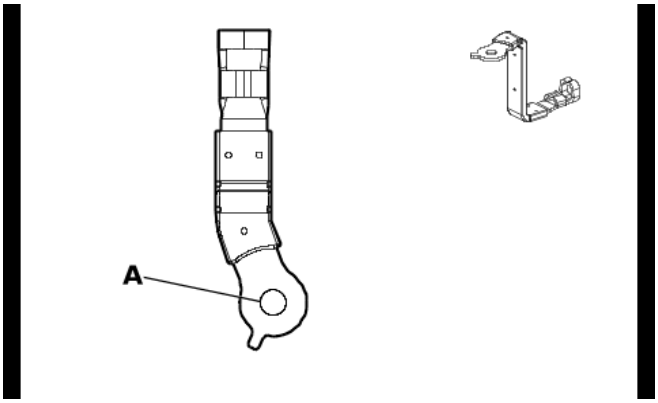
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M49P Seat Motor Assembly - Passenger (AG2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	YE	288	Passenger Seat Rear Vertical Motor Up Control	I	—
B	—	BU	289	Passenger Seat Rear Vertical Motor Down Control	I	—
C	—	TN	296	Passenger Seat Horizontal Motor Forward Control	I	—
D	—	GN	290	Passenger Seat Horizontal Motor Rearward Control	I	—
E	—	GN	297	Passenger Seat Front Vertical Motor Up Control	I	—
F	—	BU	298	Passenger Seat Front Vertical Motor Down Control	I	—

M64 Starter Motor X1 (L8T)



6056268

Connector Part Information

Harness Type: Battery Positive Cable
OEM Connector: 35592444
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

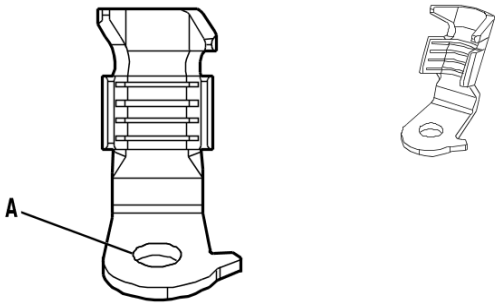
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M64 Starter Motor X1 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—
	32	RD	1	Unfused Battery Positive Voltage		—

M64 Starter Motor X1 (LV1)



4937583

Connector Part Information

Harness Type: Battery Positive Cable
OEM Connector: 35116268
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

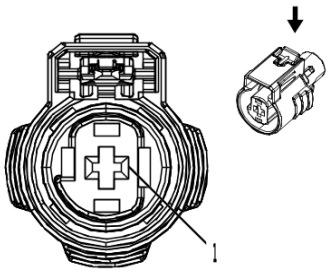
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M64 Starter Motor X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

M64 Starter Motor X2



2717134

Connector Part Information

Harness Type: Starter Motor Jumper Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way

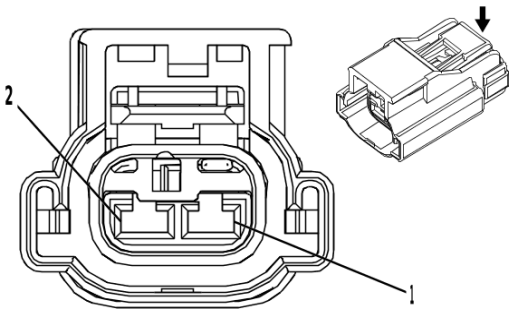
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M64 Starter Motor X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	YE	6	Starter Solenoid Crank Ignition Voltage	I	—

M74D Window Motor - Driver



3372003

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed(BK)

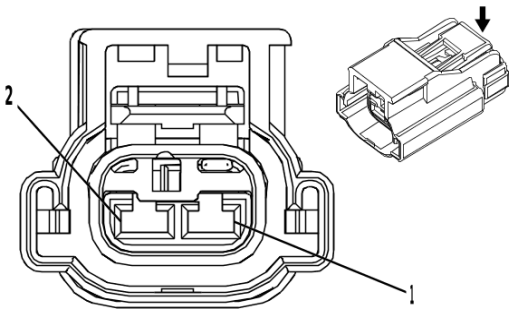
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M74D Window Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	BU	164	Left Front Window Motor Up Control	I	—
2	3	BN	165	Left Front Window Motor Down Control	I	—

M74P Window Motor - Passenger



3372003

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed(BK)

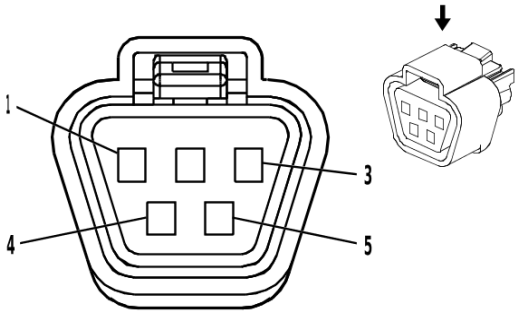
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M74P Window Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	BU	666	Right Front Window Motor Up Control	I	—
2	3	BN	667	Right Front Window Motor Down Control	I	—

M75 Windshield Wiper Motor



1715213

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 6189-0587
Service Connector: 13587179
Description: 5-Way F 090 Series, Sealed(BK)

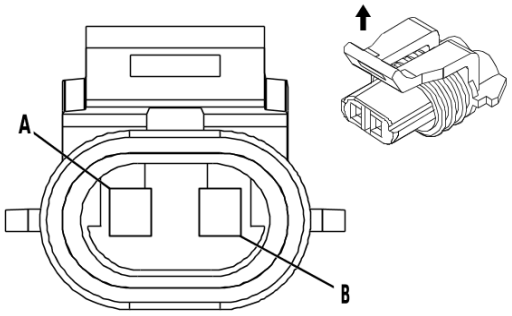
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-18 (BK)	No Tool Required

M75 Windshield Wiper Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	GN	95	Windshield Wiper Motor Low Speed Control	II	—
2	0.35	BK / WH	351	Signal Ground	I	—
3	0.35	YE	196	Windshield Wiper Motor Park Switch Signal	I	—
4	2	PU	92	Windshield Wiper Motor High Speed Control	II	—
5	2	BK	1250	Ground	II	—

P13 Horn Assembly



537107

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed(GY)

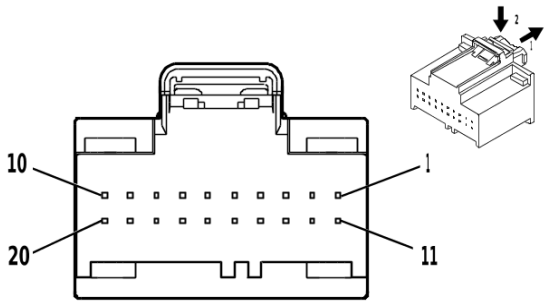
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P13 Horn Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	BK	1250	Ground	I	—
B	1	BN / GY	29	Horn Control	I	—

P16 Instrument Cluster



5112891

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 31410-0205
Service Connector: 13525990
Description: 20-Way F 0.64 Series(BK)

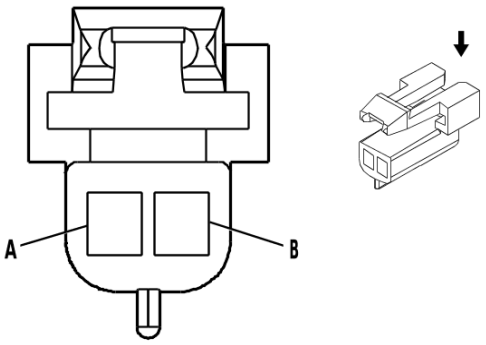
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13584547	J-35616-64B (L-BU)	J-38125-215A

P16 Instrument Cluster

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	BN / WH	419	Check Engine Indicator Control	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	GY / YE	3885	Forward Collision Alert LED Control	I	—
7	0.35	BK / WH	351	Signal Ground	I	—
8	0.35	WH / GN	3535	Reflected LED Display Dimming Control	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	BU / GY	636	Ambient Air Temperature Sensor Signal	I	—
11	0.5	BK / BU	61	Ambient Air Temperature Sensor Low Reference	I	—
12	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	—
13	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	—
14	0.5	TN / WH	33	Brake Warning Indicator Control	I	—
15	0.75	GN / GY	333	Brake Fluid Level Signal	I	—
16	0.35	PK	893	Driver Information Center Select Menu Switch Signal	I	—
17	0.35	GN / WH	1358	Driver Information Center Switch Signal	I	—
18	0.35	BN	897	Driver Information Center Switch Low Reference	I	—
19	0.35	PK	1639	Run/Crank Ignition 1 Voltage	I	—
20	0.35	RD / WH	2840	Battery Positive Voltage	I	

P19AG Speaker - Left Front Door



280768

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series(BK)

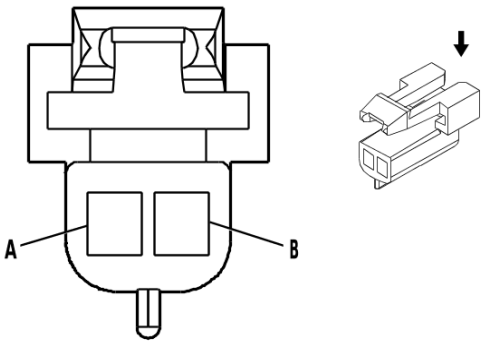
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19AG Speaker - Left Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BU	1957	Left Front Midrange Speaker [-] Control	I	—
B	0.8	BU	1857	Left Front Midrange Speaker [+] Control	I	—

P19AH Speaker - Right Front Door



280768

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series(BK)

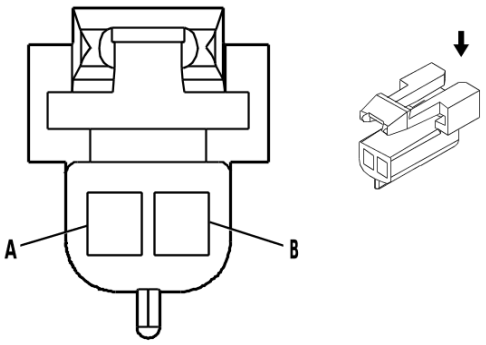
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19AH Speaker - Right Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	GN	1953	Right Front Midrange Speaker [-] Control	I	—
B	0.8	OG	1853	Right Front Midrange Speaker [+] Control	I	—

P19F Speaker - Left Rear Cargo Door



280768

Connector Part Information

Harness Type: Rear Door Door Wiring Harness - Left
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series(BK)

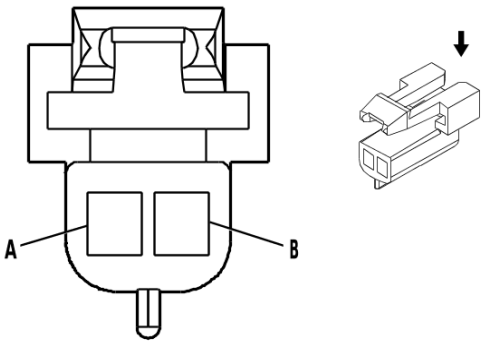
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19F Speaker - Left Rear Cargo Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	1959	Left Rear Midrange Speaker [-] Control	I	—
B	1	TN	1859	Left Rear Midrange Speaker [+] Control	I	—

P19LR Speaker - Left Rear Roof



280768

Connector Part Information

Harness Type: Radio Rear Speaker Wiring Harness
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series(BK)

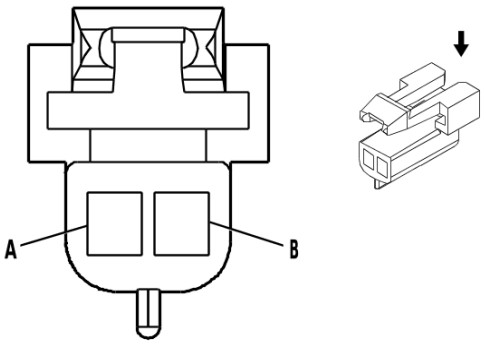
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19LR Speaker - Left Rear Roof

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	1959	Left Rear Midrange Speaker [-] Control	I	—
B	1	TN	1859	Left Rear Midrange Speaker [+] Control	I	—

P19RR Speaker - Right Rear Roof



280768

Connector Part Information

Harness Type: Radio Rear Speaker Wiring Harness
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series(BK)

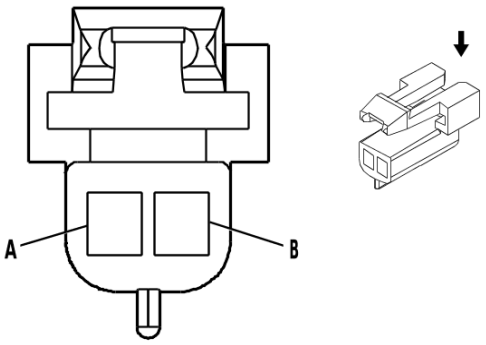
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19RR Speaker - Right Rear Roof

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	OG	1955	Right Rear Midrange Speaker [-] Control	I	—
B	1	TN	1855	Right Rear Midrange Speaker [+] Control	I	—

P19T Speaker - Right Rear Cargo Door



280768

Connector Part Information

Harness Type: Rear Door Door Wiring Harness
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series(BK)

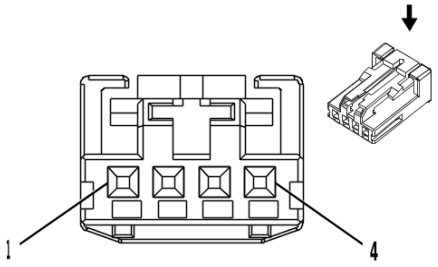
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19T Speaker - Right Rear Cargo Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	OG	1955	Right Rear Midrange Speaker [-] Control	I	—
B	1	TN	1855	Right Rear Midrange Speaker [+] Control	I	—

P43 Collision Alert Indicators



2717162

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 1-936119-1
Service Connector: 19367524
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

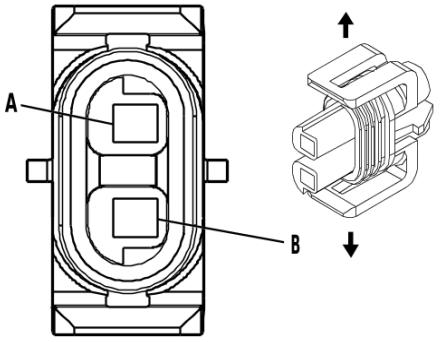
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

P43 Collision Alert Indicators

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BK	1639	Run/Crank Ignition 1 Voltage	I	—
2	0.35	GY / YE	3885	Forward Collision Alert LED Control	I	—
3	0.35	WH / GN	3535	Reflected LED Display Dimming Control	I	—
4	0.5	BK / WH	2151	Signal Ground	I	—

Q2 A/C Compressor Clutch



684852

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 12162017
Service Connector: 12101937
Description: 2-Way F 150 Metri-Pack Series, Sealed(GY)

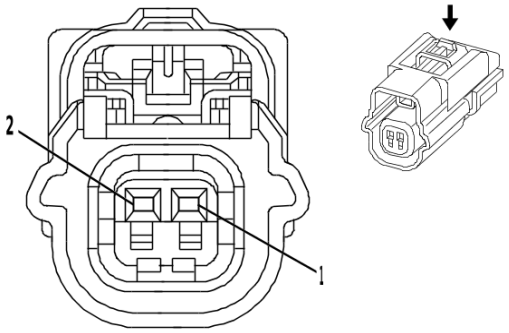
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

Q2 A/C Compressor Clutch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BK	1250	Ground	I	—
B	0.5	BN / GN	59	Air Conditioning Compressor Clutch Control	I	—

Q6 Camshaft Position Actuator Solenoid Valve



1664592

Connector Part Information

Harness Type: Camshaft Position Actuator Solenoid Valve Jumper
OEM Connector: 89047381
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Kaizen Series, Sealed(BK)

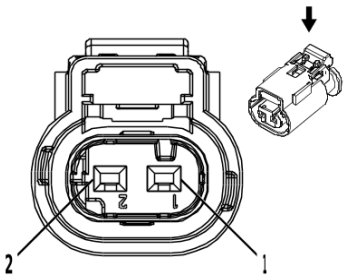
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q6 Camshaft Position Actuator Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK / BN	6753	Camshaft Position Actuator Solenoid Valve W Low Reference	I	—
2	—	VT / BN	5284	Intake Camshaft Position Actuator Solenoid Valve 1	I	—

Q12 Evaporative Emission Purge Solenoid Valve



2717066

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010337
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

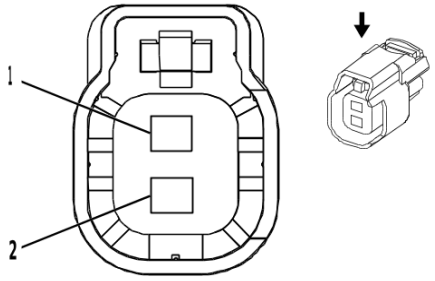
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q12 Evaporative Emission Purge Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
2	0.5	GN / BU	428	EVAP Canister Purge Solenoid Control	I	—

Q13 Evaporative Emission Vent Solenoid Valve



2422378

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34062-0028
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

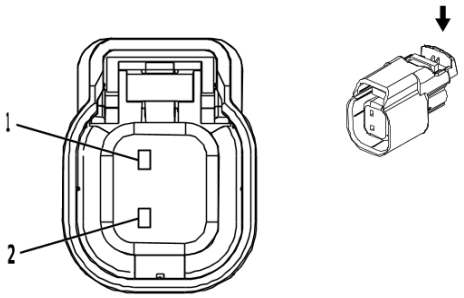
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

Q13 Evaporative Emission Vent Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	1310	EVAP Vent Solenoid Valve Control	I	—
2	0.5	RD / GN	40	Battery Positive Voltage	I	—

Q17A Fuel Injector 1



2792100

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 340624008
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

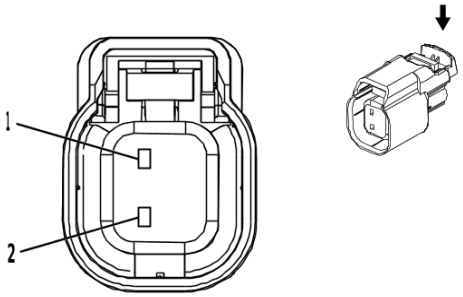
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17A Fuel Injector 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	BN / WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	I	—
2	0.8	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	I	—

Q17B Fuel Injector 2



2792100

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 340624008
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

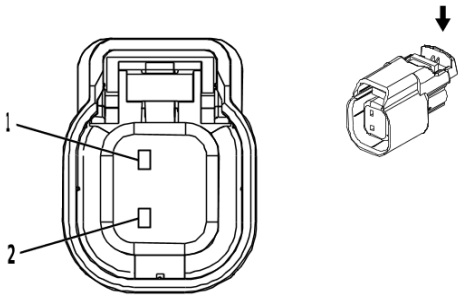
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17B Fuel Injector 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	BU / GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	I	—
2	0.8	BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	I	—

Q17C Fuel Injector 3



2792100

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 340624008
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

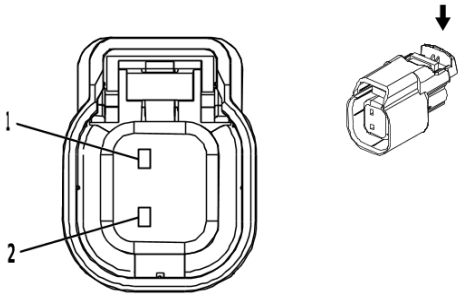
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17C Fuel Injector 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	GN / GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	I	—
2	0.8	GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	I	—

Q17D Fuel Injector 4



2792100

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 340624008
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

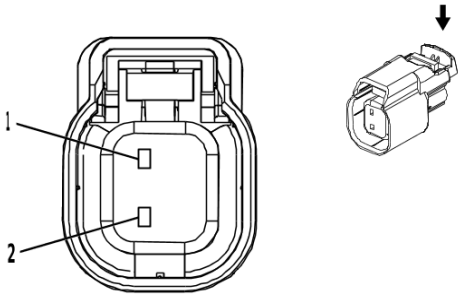
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17D Fuel Injector 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	BU / WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	I	—
2	0.8	GY / BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	I	—

Q17E Fuel Injector 5



2792100

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 340624008
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

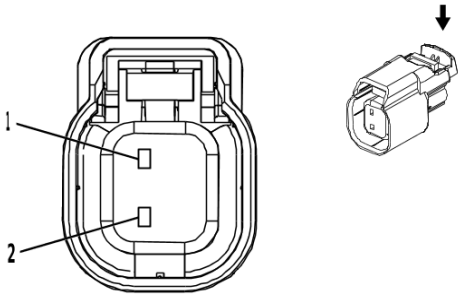
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17E Fuel Injector 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	GN / WH	4905	Direct Fuel Injector High Voltage Supply Cylinder 5	I	—
2	0.8	WH / GN	4805	Direct Fuel Injector High Voltage Control Cylinder 5	I	—

Q17F Fuel Injector 6



2792100

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 340624008
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

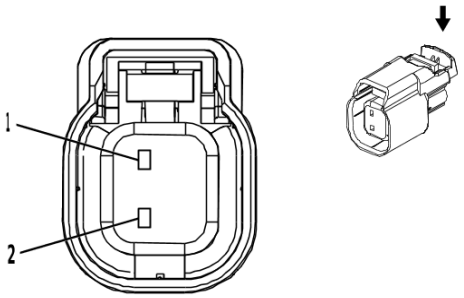
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17F Fuel Injector 6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	VT / GY	4906	Direct Fuel Injector High Voltage Supply Cylinder 6	I	—
2	0.8	VT / GN	4806	Direct Fuel Injector High Voltage Control Cylinder 6	I	—

Q17G Fuel Injector 7 (L8T)



2792100

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 13581410
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

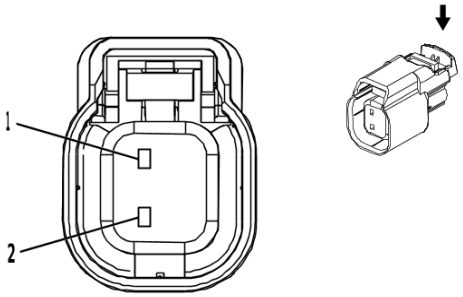
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17G Fuel Injector 7 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	WH / YE	4907	Direct Fuel Injector High Voltage Supply Cylinder 7	I	—
2	—	YE / GY	4807	Direct Fuel Injector High Voltage Control Cylinder 7	I	—

Q17H Fuel Injector 8 (L8T)



2792100

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 13581410
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

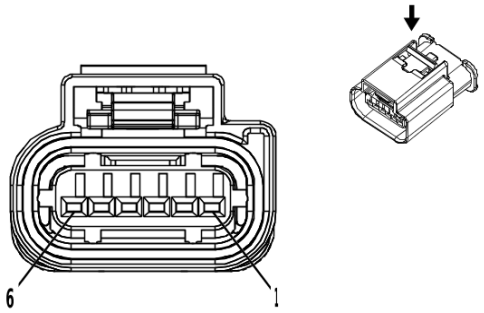
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17H Fuel Injector 8 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY / WH	4908	Direct Fuel Injector High Voltage Supply Cylinder 8	I	—
2	—	GY	4808	Direct Fuel Injector High Voltage Control Cylinder 8	I	—

Q38 Throttle Body



3747579

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 2272975-5
Service Connector: 19352911
Description: 6-Way F 1.2 MCON Series, Sealed(BK)

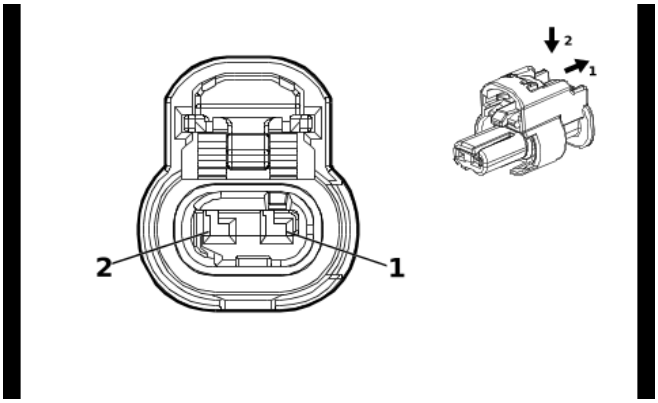
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

Q38 Throttle Body

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Open Control	I	—
2	0.5	BN / WH	582	Throttle Actuator Close Control	I	—
3	0.5	BU / WH	3630	Throttle Position Sensor SENT 1 Signal	I	—
4	0.5	BK / BN	2752	Throttle Position Sensor Low Reference	I	—
5	0.5	BN / RD	2701	Throttle Position Sensor 5V Reference	I	—
6	—	—	—	Not Occupied	—	—

Q44 Engine Oil Pressure Control Solenoid Valve (L8T)



4036662

Connector Part Information

Harness Type: Oil Pump Flow Control Solenoid Valve Wire Wiring Harness
OEM Connector: 1-2296704-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON-CB Series, Sealed(BK)

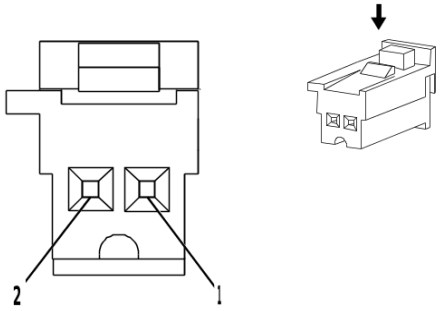
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

Q44 Engine Oil Pressure Control Solenoid Valve (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
2	—	BU	179	Engine Oil Pump Control	I	—

Q77A Transmission Control Solenoid Valve 1 (MTH / N8X)



4051391

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13956948
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(VT)

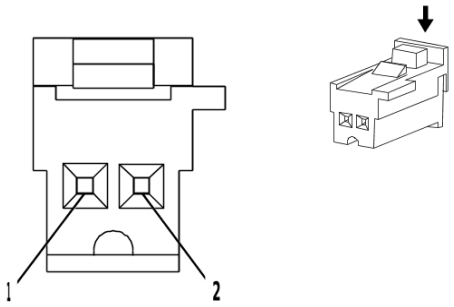
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q77A Transmission Control Solenoid Valve 1 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BN	6400	Clutch Solenoid Valve A Control	I	—
2	—	GY / BN	6388	Transmission High Side Driver 2 Control	I	—

Q77B Transmission Control Solenoid Valve 2 (MTH / N8X)



4008644

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13941672
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(GY)

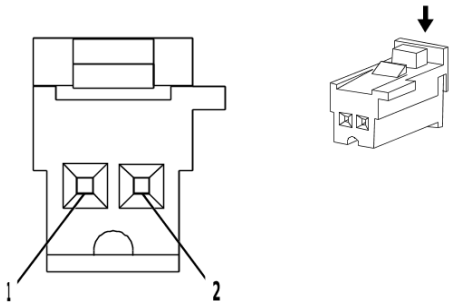
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q77B Transmission Control Solenoid Valve 2 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BU	6401	Clutch Solenoid Valve B Control	I	—
2	—	GY / BN	6388	Transmission High Side Driver 2 Control	I	—

Q77C Transmission Control Solenoid Valve 3 (MTH / N8X)



4008644

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13941672
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(GY)

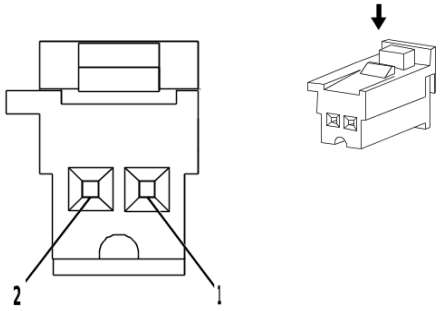
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q77C Transmission Control Solenoid Valve 3 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY	6402	Clutch Solenoid Valve C Control	I	—
2	—	GY / BN	6388	Transmission High Side Driver 2 Control	I	—

Q77D Transmission Control Solenoid Valve 4 (MTH / N8X)



4051391

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13956948
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(VT)

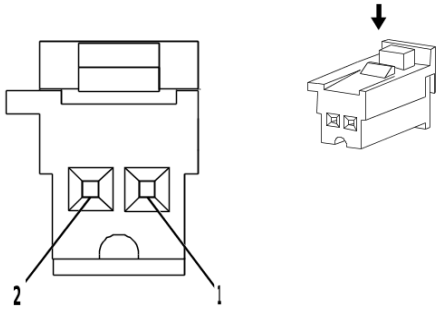
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q77D Transmission Control Solenoid Valve 4 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	WH	4508	Transmission Clutch G Control	I	—
2	—	GN / GY	6387	Transmission High Side Driver 1 Control	I	—

Q77E Transmission Control Solenoid Valve 5 (MTH / N8X)



4051391

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13956948
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(VT)

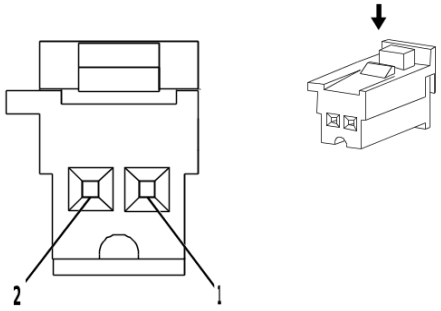
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q77E Transmission Control Solenoid Valve 5 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	WH / BU	4507	Transmission Clutch H Control	I	—
2	—	GN / GY	6387	Transmission High Side Driver 1 Control	I	—

Q77F Transmission Control Solenoid Valve 6 (MTH / N8X)



4051391

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13956948
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(VT)

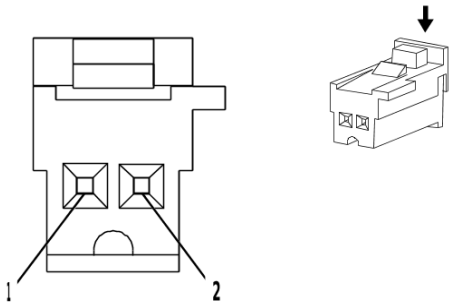
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q77F Transmission Control Solenoid Valve 6 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY / GN	6403	Clutch Solenoid Valve D Control	I	—
2	—	GY / BN	6388	Transmission High Side Driver 2 Control	I	—

Q77G Transmission Control Solenoid Valve 7 (MTH / N8X)



4008644

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13941672
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(GY)

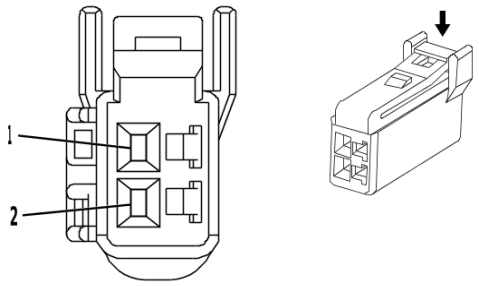
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q77G Transmission Control Solenoid Valve 7 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	YE / BN	6404	Clutch Solenoid Valve E Control	I	—
2	—	GY / BN	6388	Transmission High Side Driver 2 Control	I	—

Q77H Transmission Control Solenoid Valve 8 (MTH / N8X)



4051682

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 7287-0122
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 040 III Series(NA)

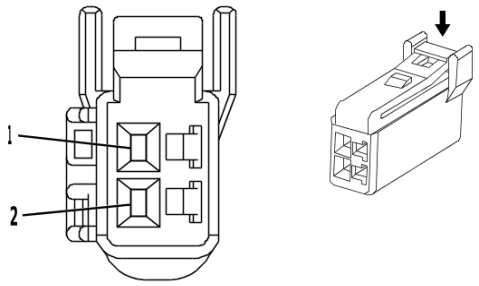
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q77H Transmission Control Solenoid Valve 8 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GN / GY	6387	Transmission High Side Driver 1 Control	I	—
2	—	GN / WH	6380	Torque Converter Clutch Enable Solenoid Valve A Control	I	—

Q77J Transmission Control Solenoid Valve 9 (MTH / N8X)



4051682

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 7287-0122
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 040 III Series(NA)

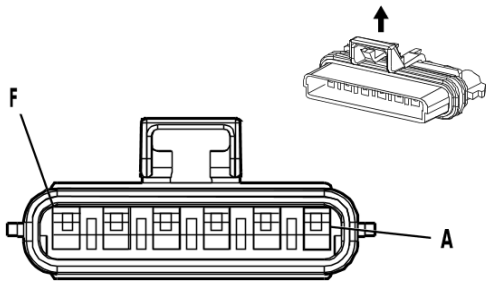
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q77J Transmission Control Solenoid Valve 9 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY / BN	6388	Transmission High Side Driver 2 Control	I	—
2	—	YE / BN	6210	Torque Converter Clutch Enable Solenoid Valve B Control	I	—

R3 Blower Motor Resistor



535914

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 12160746
Service Connector: 15306007
Description: 6-Way F 280 Metri-Pack Flexlock Series, Sealed(L-GY)

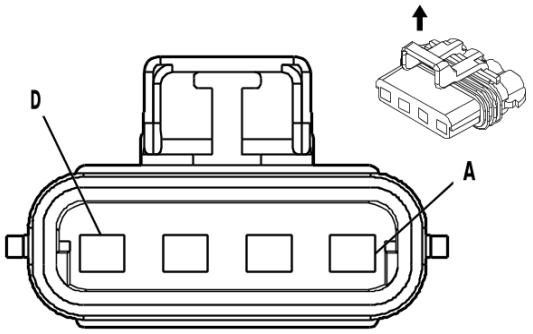
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

R3 Blower Motor Resistor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	RD / PU	542	Battery Positive Voltage	I	—
B	1	WH / BK	52	Blower Motor High Speed Control	I	—
C	4	BK	1250	Ground	I	—
D	1	YE / BN	63	Blower Motor Medium 1 Control	I	—
E	1	YE	60	Blower Motor Low Speed Control	I	—
F	2	BU / YE	72	Blower Motor Medium 2 Control	I	—

R3B Blower Motor Resistor - Auxiliary



697053

Connector Part Information

Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
OEM Connector: 12129566
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 280 Metri-Pack Series, Sealed(GY)

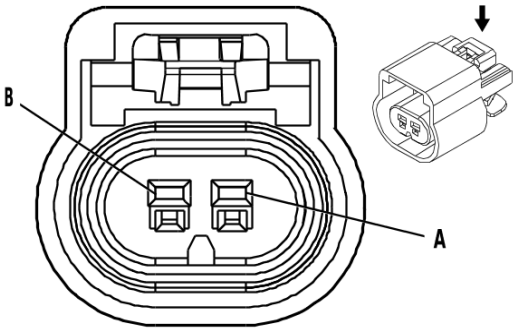
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

R3B Blower Motor Resistor - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	YE	1176	Auxiliary Blower Motor Low Speed Control	I	—
B	—	—	—	Not Occupied	—	—
C	3	BU	1072	Auxiliary Blower Motor Medium Speed Control	I	—
D	3	YE	1172	Auxiliary Blower Motor Control	I	—

R6A Terminating Resistor - High Speed Bus



523630

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13510085
Service Connector: 87815146
Description: 2-Way F 150 GT Series, Sealed(BK)

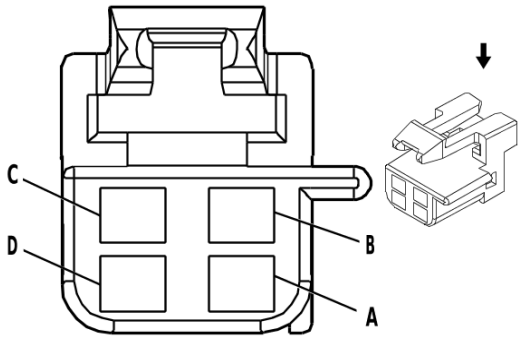
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

R6A Terminating Resistor - High Speed Bus

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
B	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—

S2 Transmission Manual Shift Switch



130637

Connector Part Information

Harness Type: Steering Column
OEM Connector: 12064760
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 Metri-Pack Series(BK)

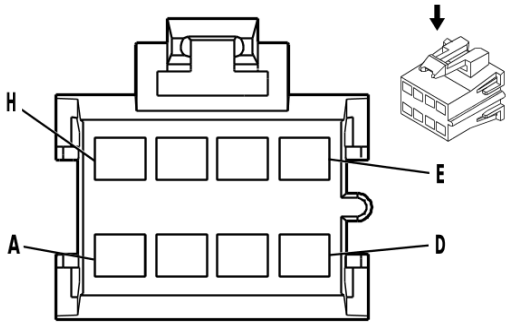
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

S2 Transmission Manual Shift Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	—	PU	5526	Tap Up/Tap Down Switch Signal	I	—
D	—	PK	1444	12V Reference	I	—

S13A Door Lock Switch - Rear Cargo



62469

Connector Part Information

Harness Type: Rear Door Door Wiring Harness
OEM Connector: 12064998
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 Metri-Pack Series(BK)

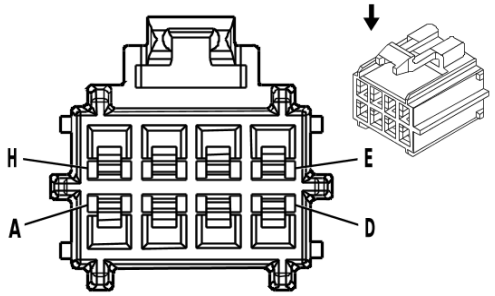
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S13A Door Lock Switch - Rear Cargo

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BU	244	Passenger Door Lock Switch Lock Control	I	—
B - C	—	—	—	Not Occupied	—	—
D	0.35	BU	245	Passenger Door Lock Switch Unlock Control	I	—
E	0.35	BK / WH	1051	Signal Ground	I	—
F - H	—	—	—	Not Occupied	—	—

S13D Door Lock Switch - Driver



851474

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 15418533
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 GT Series(L-GN)

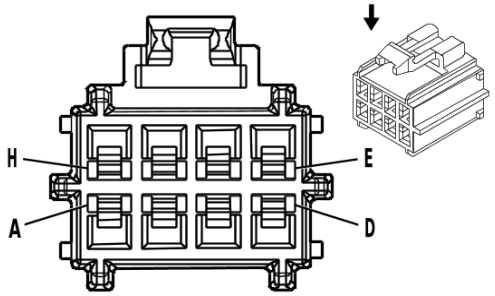
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S13D Door Lock Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	450	Ground	I	—
B	0.35	BK	450	Ground	I	—
C	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
D - E	—	—	—	Not Occupied	—	—
F	0.35	OG / BK	781	Driver Door Lock Switch Unlock Signal	I	—
G	0.35	PK / BK	780	Driver Door Lock Switch Lock Signal	I	—
H	—	—	—	Not Occupied	—	—

S13P Door Lock Switch - Passenger



851474

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 15418533
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 GT Series(L-GN)

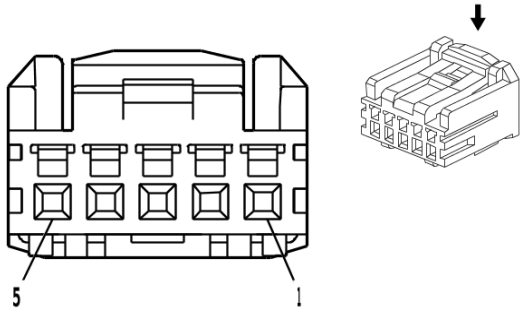
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S13P Door Lock Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground	I	—
B	0.35	BK	1850	Ground	I	—
C	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
D - E	—	—	—	Not Occupied	—	—
F	0.35	BU	245	Passenger Door Lock Switch Unlock Control	I	—
G	0.35	BU	244	Passenger Door Lock Switch Lock Control	I	—
H	—	—	—	Not Occupied	—	—

S16 Driver Information Center Switch



1673494

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: HCMPB-A05-K
Service Connector: 88988747
Description: 5-Way F HCM 5PA Series(BK)

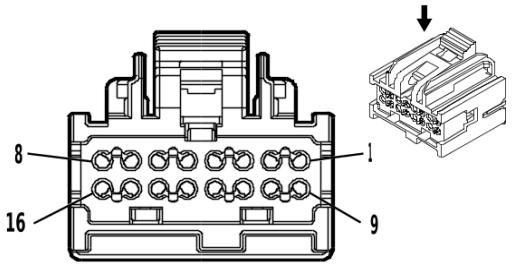
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S16 Driver Information Center Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / WH	1358	Driver Information Center Switch Signal	I	—
2	0.35	BN	897	Driver Information Center Switch Low Reference	I	—
3	0.35	PK	893	Driver Information Center Select Menu Switch Signal	I	—
4	0.5	YE	6817	LED Backlight Dimming Control 1	I	—
5	0.5	BK / WH	351	Signal Ground	I	—

S30 Headlamp Switch



2127936

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13568238
Service Connector: 13504130
Description: 16-Way F 64 Micro-Series(BK)

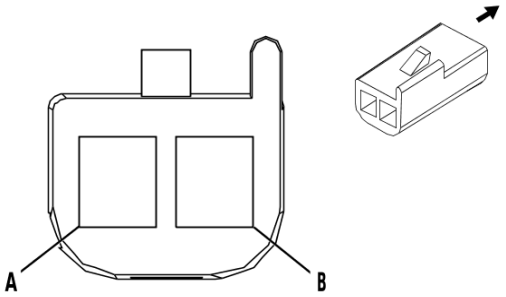
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579976	J-35616-64B (L-BU)	J-38125-21
II	19370337	J-35616-64B (L-BU)	J-38125-21

S30 Headlamp Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH	103	Headlamp Switch On Signal	II	—
2	0.35	BU	13	Headlamp Switch Park Lamp Signal	II	—
3	0.35	GN	306	Headlamp Switch Off Signal	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	II	—
8	0.5	BK / WH	351	Signal Ground	I	—
9	0.35	PU	328	Interior Lamp Defeat Switch Signal	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.35	BU / WH	149	Courtesy Lamp Control	II	—
13	0.35	GN	44	Instrument Panel Lamp Dimmer Switch Signal	II	—
14	—	—	—	Not Occupied	—	—
15	0.35	OG / WH	812	12V Reference	II	—
16	—	—	—	Not Occupied	—	—

S33 Horn Switch



82383

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: 12047662
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series(BK)

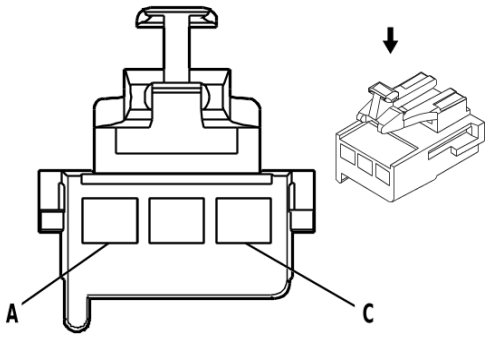
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

S33 Horn Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	TN	28	Horn Relay Control	I	—
B	—	BK	350	Ground	I	—

S34 HVAC Controls Switch Assembly X1



68737

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12129489
Service Connector: 19368864
Description: 3-Way F 280 Metri-Pack Flexlock Series(BK)

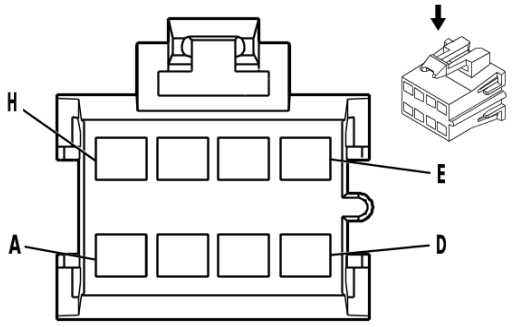
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	119	Mode Door Control	I	—
B	1	BK	550	Ground	I	—
C	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—

S34 HVAC Controls Switch Assembly X2



62469

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12064998
Service Connector: 15306189
Description: 8-Way F 280 Metri-Pack Series(BK)

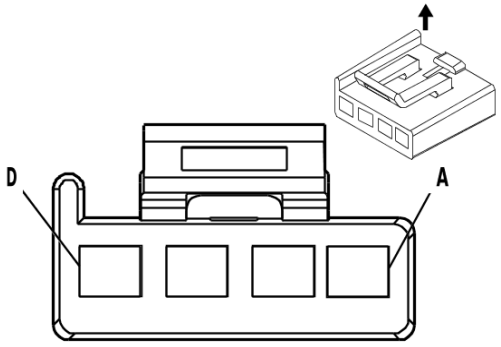
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	YE	60	Blower Motor Low Speed Control	I	—
B	0.8	TN	63	Blower Motor Medium 1 Control	I	—
C	0.8	BU	72	Blower Motor Medium 2 Control	I	—
D	0.8	OG	52	Blower Motor High Speed Control	I	—
E	1	BN	141	Run Ignition 3 Voltage	I	—
F	0.8	BU	733	Air Temperature Door Position Signal	I	—
G	1	WH	119	Mode Door Control	I	—
H	0.5	GN / WH	762	Air Conditioning Request Signal 2	I	—

S34 HVAC Controls Switch Assembly X3



62450

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12052856
Service Connector: 12125636
Description: 4-Way F 280 Metri-Pack Series(BK)

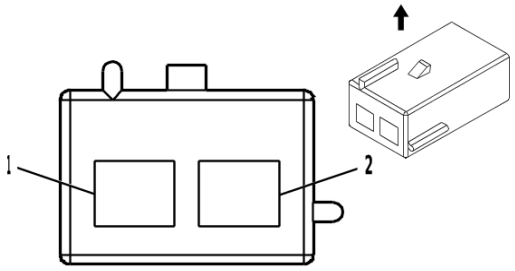
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	RD / WH	4440	Battery Positive Voltage	I	—
B	0.35	BN	341	Run Ignition 3 Voltage	I	—
C	1	BK	550	Ground	I	—
D	0.35	WH	193	Rear Defogger Relay Control	I	—

S34 HVAC Controls Switch Assembly X4



1283895

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15318080
Service Connector: 21019410
Description: 2-Way F 280 Metri-Pack Series(BK)

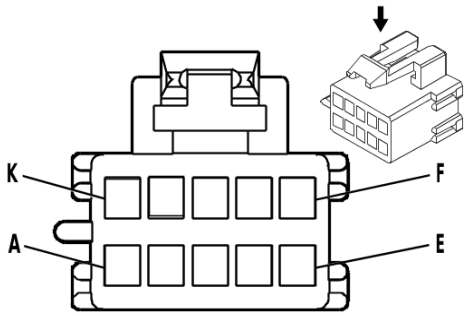
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	66	Air Conditioning Request Signal	I	—
2	0.5	GN / WH	762	Air Conditioning Request Signal 2	I	—

S34F HVAC Controls Switch Assembly - Auxiliary Front With Rear Control



62464

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 12064769
Service Connector: 12101762
Description: 10-Way F 150 Metri-Pack Series(NA)

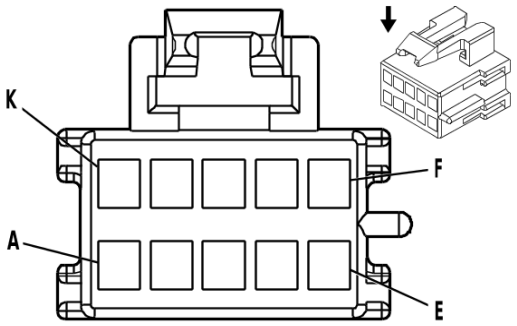
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575464	J-35616-14 (GN)	J-38125-12A

S34F HVAC Controls Switch Assembly - Auxiliary Front With Rear Control

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	1850	Ground	I	—
C	0.5	BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
F	0.35	YE	5262	Auxiliary HVAC Rear Controls Enable Signal	I	—
G	0.35	BN	341	Run Ignition 3 Voltage	I	—
H	0.35	PU	5260	Auxiliary HVAC Front Temperature Signal	I	—
J	0.35	TN	5261	Auxiliary HVAC Front Mode Signal	I	—
K	—	—	—	Not Occupied	—	—

S34F HVAC Controls Switch Assembly - Auxiliary Front Without Rear Control



803688

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 12064871
Service Connector: 12101832
Description: 10-Way F 150 Metri-Pack Series(BU)

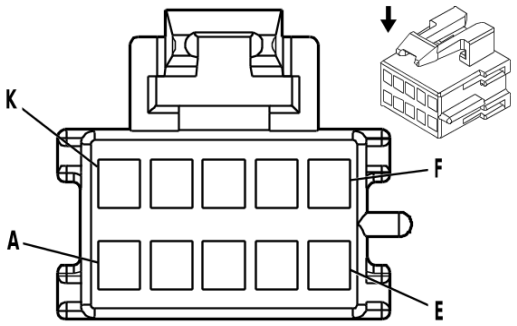
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575464	J-35616-14 (GN)	J-38125-12A

S34F HVAC Controls Switch Assembly - Auxiliary Front Without Rear Control

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	1850	Ground	I	—
C	0.5	BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
F	0.35	BK	1850	Ground	I	—
G	0.35	BN	341	Run Ignition 3 Voltage	I	—
H	0.35	OG	2775	Rear Air Temperature Door Actuator Control	I	—
J	0.35	GY	2599	Rear Mode Door Actuator Signal	I	—
K	—	—	—	Not Occupied	—	—

S34R HVAC Controls Switch Assembly - Auxiliary Rear



803688

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 12064871
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 150 Metri-Pack Series(BU)

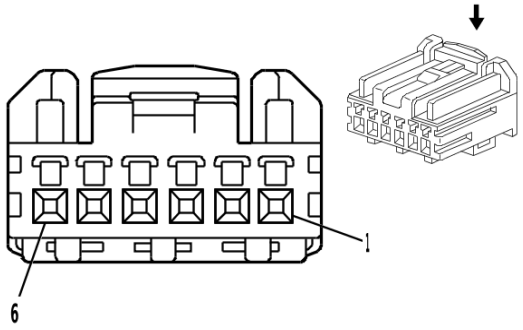
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

S34R HVAC Controls Switch Assembly - Auxiliary Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
B	—	BK	1050	Ground	I	—
C	—	BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
D	—	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	—	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
F	—	PK / BK	5265	Auxiliary HVAC Rear Control Signal	I	—
G	—	BN	341	Run Ignition 3 Voltage	I	—
H	—	BN	5263	Auxiliary HVAC Rear Temperature Signal	I	—
J	—	PU / WH	5264	Auxiliary HVAC Rear Mode Signal	I	—
K	—	—	—	Not Occupied	—	—

S39 Ignition Switch



3681331

Connector Part Information

Harness Type: Steering Column
OEM Connector: HCMPB-C06-K
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 HCM Series(BK)

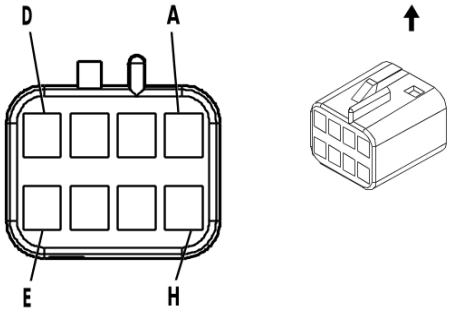
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S39 Ignition Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	—	PK	3	Run/Crank Ignition 1 Voltage	I	—
3	—	BN	4	Accessory Ignition Voltage	I	—
4	—	RD / WH	540	Battery Positive Voltage	I	—
5	—	PK	1020	Off/Run/Crank Ignition Voltage	I	—
6	—	WH	530	Off/Run/Crank Ignition Voltage	I	—

S51 Telematics Button Assembly



62439

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12047886
Service Connector: 13584485
Description: 8-Way F 150 Metri-Pack Series(BK)

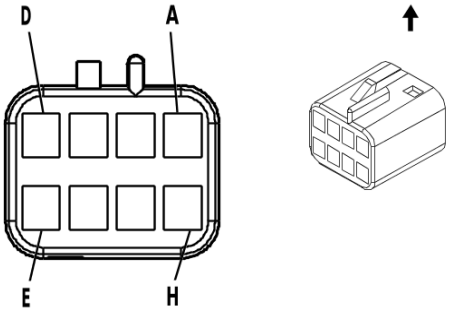
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

S51 Telematics Button Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	GN / BK	2515	Telematics Switch Supply Voltage	I	—
B	0.8	GN / WH	2514	Telematics Switch Signal	I	—
C - D	—	—	—	Not Occupied	—	—
E	1	BK / WH	351	Signal Ground	I	—
F	0.8	YE / BK	2516	Telematics Switch Green LED Indicator Control	I	—
G	0.8	BN / WH	2517	Telematics Switch Red LED Indicator Control	I	—
H	—	—	—	Not Occupied	—	—

S52 Outside Rearview Mirror Switch



62439

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series(BK)

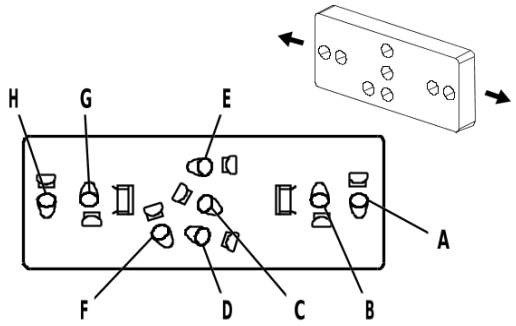
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

S52 Outside Rearview Mirror Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	OG / WH	881	Right Outside Rearview Mirror Motor Right Control	I	—
B	0.35	PU / WH	889	Right Outside Rearview Mirror Motor Down Control	I	—
C	0.35	BN / WH	1498	Right Outside Rearview Mirror Motor Up Control	I	—
D	0.5	BK	450	Ground	I	—
E	0.5	RD / WH	4340	Battery Positive Voltage	I	—
F	0.35	GN	89	Left Outside Rearview Mirror Motor Down Control	I	—
G	0.35	WH	81	Left Outside Rearview Mirror Motor Right Control	I	—
H	0.35	YE	88	Left Outside Rearview Mirror Motor Up Control	I	—

S64D Seat Adjuster Switch - Driver (AG1)



387555

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 12066386
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F Pin Grip Connector(GY)

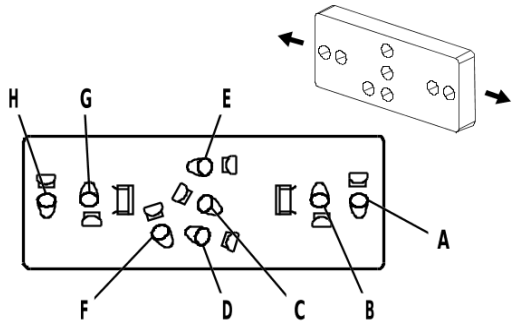
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

S64D Seat Adjuster Switch - Driver (AG1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BU	283	Driver Seat Rear Vertical Motor Down Control	I	—
B	—	YE	282	Driver Seat Rear Vertical Motor Up Control	I	—
C	—	BK	450	Ground	I	—
D	—	TN	285	Driver Seat Horizontal Motor Forward Control	I	—
E	—	GN	284	Driver Seat Horizontal Motor Rearward Control	I	—
F	—	RD / WH	3540	Battery Positive Voltage	I	—
G	—	BU	287	Driver Seat Front Vertical Motor Down Control	I	—
H	—	GN	286	Driver Seat Front Vertical Motor Up Control	I	—

S64P Seat Adjuster Switch - Passenger (AG2)



387555

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 12066386
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F Pin Grip Connector(GY)

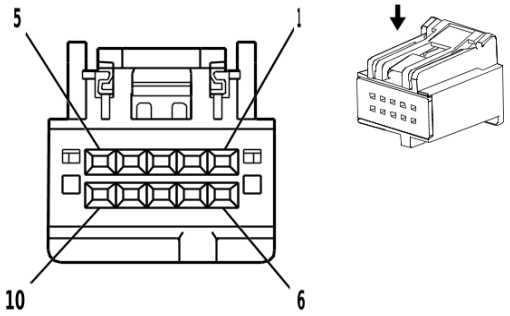
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

S64P Seat Adjuster Switch - Passenger (AG2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BU	289	Passenger Seat Rear Vertical Motor Down Control	I	—
B	—	YE	288	Passenger Seat Rear Vertical Motor Up Control	I	—
C	—	BK	1850	Ground	I	—
D	—	TN	296	Passenger Seat Horizontal Motor Forward Control	I	—
E	—	GN	290	Passenger Seat Horizontal Motor Rearward Control	I	—
F	—	RD / WH	3540	Battery Positive Voltage	I	—
G	—	BU	298	Passenger Seat Front Vertical Motor Down Control	I	—
H	—	GN	297	Passenger Seat Front Vertical Motor Up Control	I	—

S70L Steering Wheel Controls Switch - Left (K34)



1399235

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: 30700-1100
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 H-DAC Series(GY)

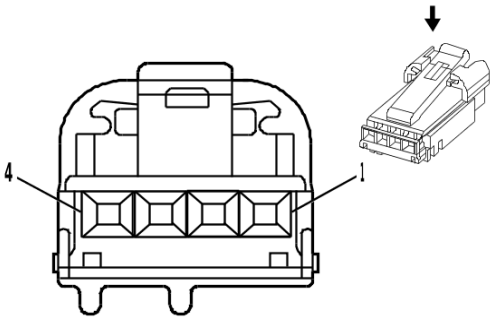
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S70L Steering Wheel Controls Switch - Left (K34)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	PK	1444	12V Reference	I	—
2	—	—	—	Not Occupied	—	—
3	—	GY	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	—	BN	6136	Control	I	—
7	—	—	—	Not Occupied	—	—
8	—	BK	350	Ground	I	—
9	—	GN / WH	7158	Cruise Control Indicator Dimming Signal	I	—
10	—	—	—	Not Occupied	—	—

S70R Steering Wheel Controls Switch - Right (W1Y)



1709750

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: 31068-1010
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 H-DAC Series(BK)

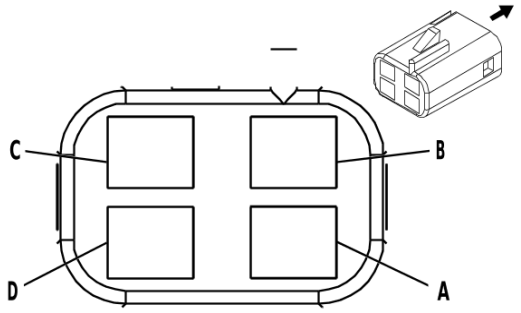
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S70R Steering Wheel Controls Switch - Right (W1Y)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK	350	Ground	I	—
2	—	BN	6136	Control	I	—
3	—	PK	1444	12V Reference	I	—
4	—	GN	6818	Steering Wheel Controls Signal 1	I	—

S74 Tow/Haul Mode Switch



39660

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12047785
Service Connector: 12102900
Description: 4-Way F 150 Metri-Pack Series(BK)

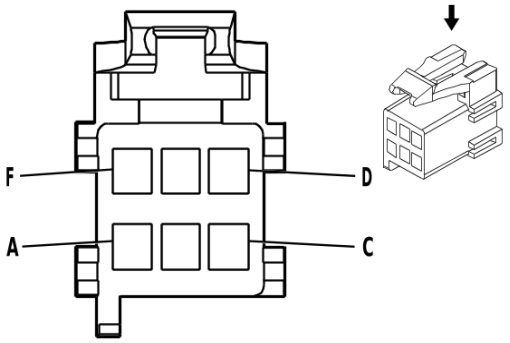
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

S74 Tow/Haul Mode Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK / WH	351	Signal Ground	I	—
B	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	BU	1788	Traction Control Switch Signal 1	I	—

S75 Traction Control Switch



304345

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12177195
Service Connector: 15305931
Description: 6-Way F 150 Metri-Pack Series(BK)

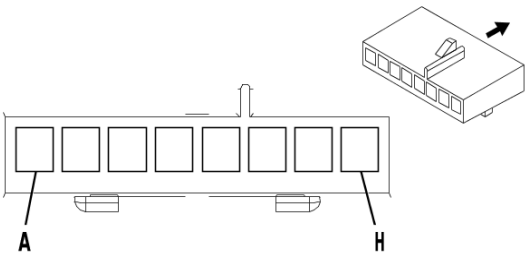
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

S75 Traction Control Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	0.35	BK / WH	351	Signal Ground	I	—
D	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
E	—	—	—	Not Occupied	—	—
F	0.5	BU	6727	Vehicle Stability Control Switch Signal	I	—

S78 Turn Signal/Multifunction Switch X1



39746

Connector Part Information

Harness Type: Steering Column
OEM Connector: 12064862
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series(BK)

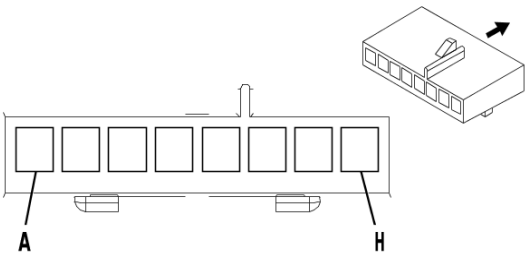
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

S78 Turn Signal/Multifunction Switch X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	—	BK / WH	351	Signal Ground	I	—
D	—	TN	664	Hazard Switch Right Turn Signal	I	—
E	—	GN	663	Hazard Switch Left Turn Signal	I	—
F	—	BK / WH	351	Signal Ground	I	—
G	—	WH	111	Hazard Warning Switch Signal	I	—
H	—	—	—	Not Occupied	—	—

S78 Turn Signal/Multifunction Switch X2



39746

Connector Part Information

Harness Type: Steering Column
OEM Connector: 12064862
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series(BK)

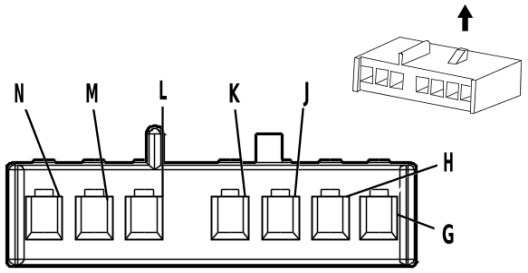
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

S78 Turn Signal/Multifunction Switch X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	—	YE	525	High Beam Select Switch Low Beam Signal	I	—
D	—	BK / WH	351	Signal Ground	I	—
E	—	YE	307	Headlamp Switch Flash Signal	I	—
F - H	—	—	—	Not Occupied	—	—

S78 Turn Signal/Multifunction Switch X3



811190

Connector Part Information

Harness Type: Steering Column
OEM Connector: 15339058
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 150 Metri-Pack Series(GY)

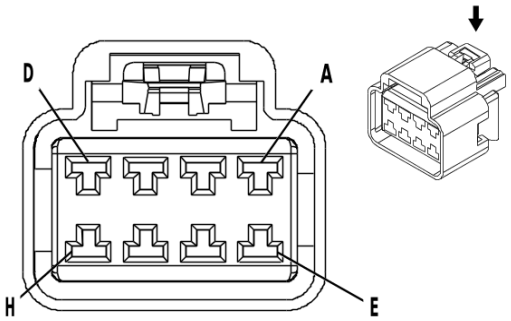
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

S78 Turn Signal/Multifunction Switch X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
G - J	—	—	—	Not Occupied	—	—
K	—	GN	1715	Windshield Wiper Switch High Signal	I	—
L	—	PK	94	Windshield Washer Switch Signal	I	—
M	—	TN / BK	6009	Windshield Wiper Switch Low Reference	I	—
N	—	BU	1714	Windshield Wiper Switch Low Signal	I	—

S79D Window Switch - Driver



556473

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 15459914
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 GT Series, Sealed(BK)

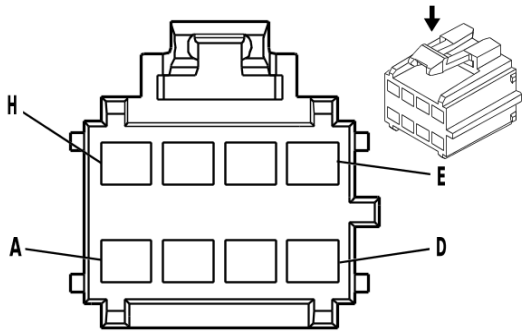
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S79D Window Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	BU	166	Right Front Window Up Switch Main Control Signal	I	—
B	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
C	3	GN	1001	Retained Accessory Power Ignition Voltage	I	—
D	3	TN	167	Right Front Window Down Switch Main Control Signal	I	—
E	—	—	—	Not Occupied	—	—
F	3	BK	450	Ground	I	—
G	3	BU	164	Left Front Window Motor Up Control	I	—
H	3	BN	165	Left Front Window Motor Down Control	I	—

S79P Window Switch - Passenger



333036

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 12191825
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 Metri-Pack Series(BN)

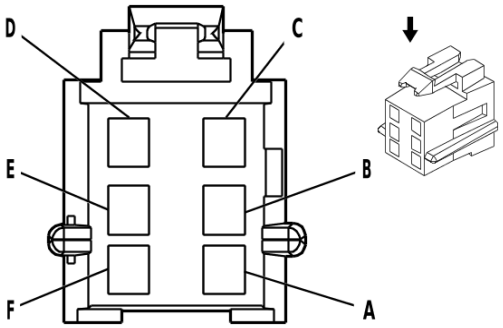
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S79P Window Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	GN	1001	Retained Accessory Power Ignition Voltage	I	—
B	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
C	0.35	BK	1850	Ground	I	—
D	3	TN	167	Right Front Window Down Switch Main Control Signal	I	—
E	—	—	—	Not Occupied	—	—
F	3	BN	667	Right Front Window Motor Down Control	I	—
G	3	BU	666	Right Front Window Motor Up Control	I	—
H	3	BU	166	Right Front Window Up Switch Main Control Signal	I	—

S85 Auxiliary Blower Motor Switch (C36)



62456

Connector Part Information

Harness Type: Auxiliary Heater Front Wiring Harness
OEM Connector: 12064752
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series(BK)

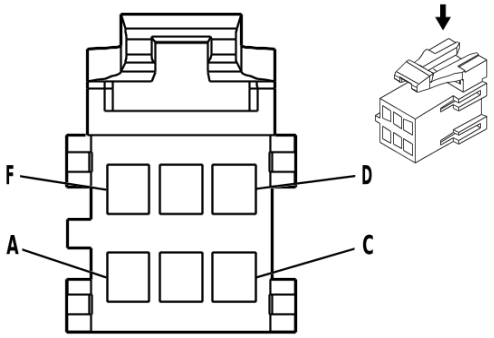
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S85 Auxiliary Blower Motor Switch (C36)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	450	Ground	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.35	BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
F	0.35	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—

S40 Passenger Air Bag Disable Switch



362753

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15305286
Service Connector: 15306014
Description: 6-Way F 150 Metri-Pack Series(YE)

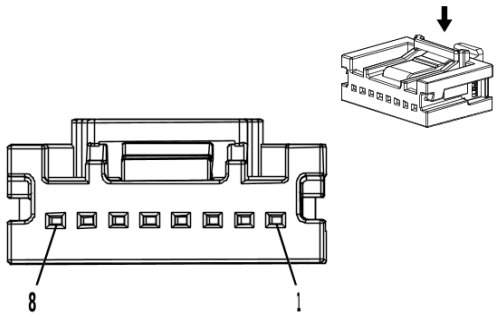
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

S40 Passenger Air Bag Disable Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	TN / BK	371	Passenger Supplemental Inflatable Restraint Disable Switch Signal	I	—
B	0.35	PK	1139	Run/Crank Ignition 1 Voltage	I	—
C	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	—
D	0.5	PK	353	Passenger Supplemental Inflatable Restraint Suppression Indicator Control	I	—
E	0.5	BK / WH	1751	Signal Ground	I	—
F	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	—

S155 Lane Departure Warning Switch



4017639

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 34791-5180
Service Connector: 19354223
Description: 8-Way F Mini 50 Series(BK)

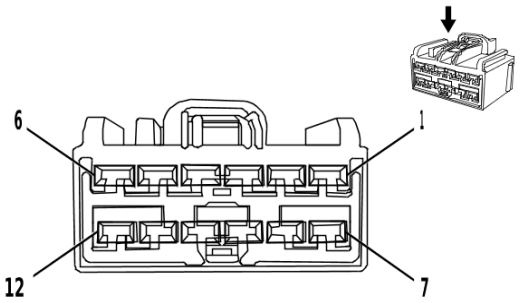
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	EL-35616-58 (BK)	No Tool Required

S155 Lane Departure Warning Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE / GY	1382	LED Dimming Signal	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.35	GY / WH	3153	Lane Departure Warning Disable Switch Signal	I	—
5	0.35	WH	6816	Indicator Dimming Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	WH	3152	Lane Departure Warning Indicator Control	I	—
8	0.35	BK / WH	2151	Signal Ground	I	—

T1 Accessory DC/AC Power Inverter Module



2231648

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 7283-6467-40
Service Connector: 13518424
Description: 12-Way F 2.8 Kaizen Series(L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368264	J-35616-4A (PU)	J-38125-11A
II	Not Available	J-35616-4A (PU)	J-38125-11A

T1 Accessory DC/AC Power Inverter Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	1	BK	5683	120V AC Phase A	I	—
3 - 5	—	—	—	Not Occupied	—	—
6	3	RD / WH	4140	Battery Positive Voltage	II	—
7	1	WH	5685	120V AC Neutral	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	Bare	514	Low Reference	I	—
11	3	BK	550	Ground	II	—
12	0.35	GN	2266	DC/AC Inverter Control 2	I	—

T4M Radio Antenna

—

Connector Part Information

Harness Type: Antenna
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way

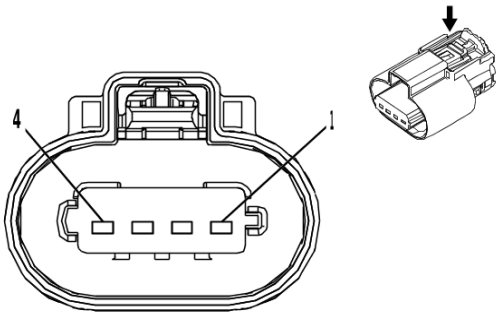
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

T4M Radio Antenna

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
BK	—	—	Coax Cable	Coax Cable	I	—

T8A Ignition Coil 1



3240115

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34770-0402
Service Connector: 19367596
Description: 4-Way F 1.5 MX Series, Sealed(BK)

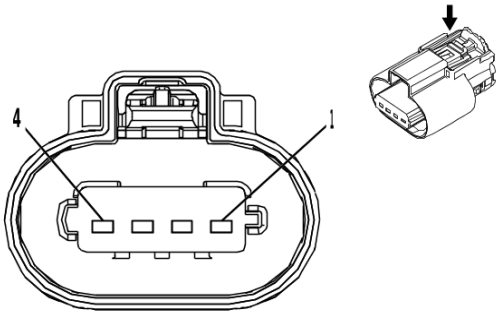
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8A Ignition Coil 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK / BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	BU / VT	2121	Ignition Control 1	I	—
4	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	I	—

T8B Ignition Coil 2



3240115

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34770-0402
Service Connector: 19367596
Description: 4-Way F 1.5 MX Series, Sealed(BK)

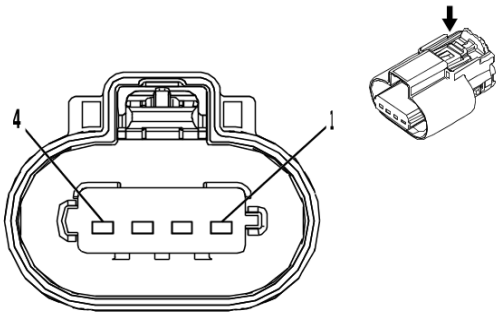
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8B Ignition Coil 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK / GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	BU / WH	2122	Ignition Control 2	I	—
4	0.75 0.75	VT / BU VT / BK	5292 1239	Powertrain Main Relay Fused Supply Voltage 3 Run/Crank Ignition 1 Voltage	I I	L8T LV1

T8C Ignition Coil 3



3240115

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34770-0402
Service Connector: 19367596
Description: 4-Way F 1.5 MX Series, Sealed(BK)

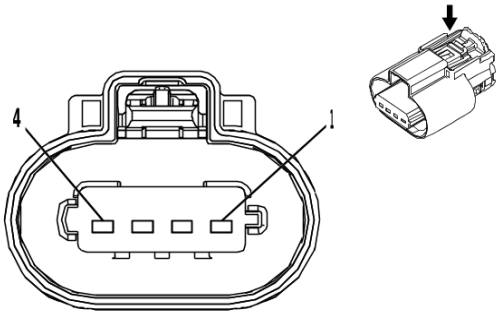
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8C Ignition Coil 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK / BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	GN / BU	2123	Ignition Control 3	I	—
4	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	I	—

T8D Ignition Coil 4



3240115

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34770-0402
Service Connector: 19367596
Description: 4-Way F 1.5 MX Series, Sealed(BK)

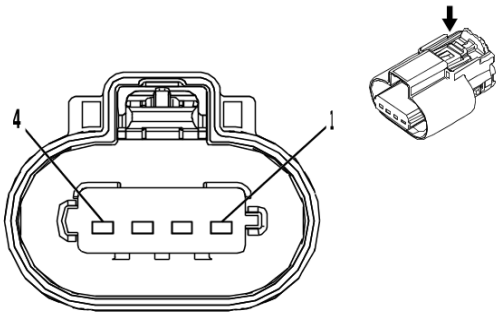
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8D Ignition Coil 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK / GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	YE / BU	2124	Ignition Control 4	I	—
4	0.75	VT / BU	5292	Powertrain Main Relay Fused Supply Voltage 3	I	L8T
	0.75	VT / BK	1239	Run/Crank Ignition 1 Voltage	I	LV1

T8E Ignition Coil 5



3240115

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34770-0402
Service Connector: 19367596
Description: 4-Way F 1.5 MX Series, Sealed(BK)

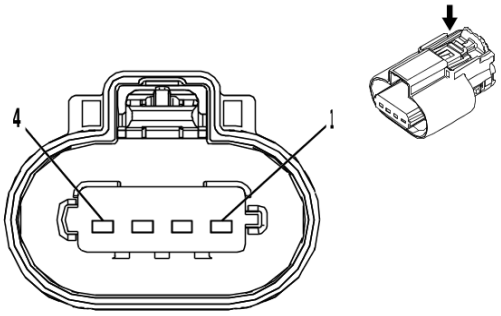
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8E Ignition Coil 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK / BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	BU / GY	2125	Ignition Control 5	I	—
4	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	I	—

T8F Ignition Coil 6



3240115

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34770-0402
Service Connector: 19367596
Description: 4-Way F 1.5 MX Series, Sealed(BK)

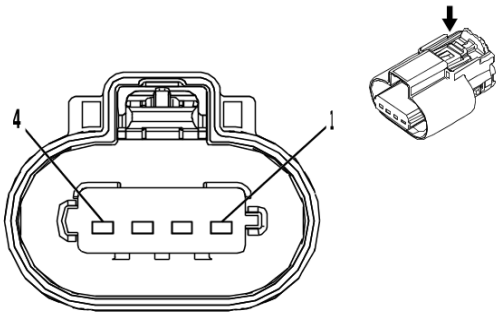
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8F Ignition Coil 6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK / GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	BN / BU	2126	Ignition Control 6	I	—
4	0.75	VT / BU	5292	Powertrain Main Relay Fused Supply Voltage 3	I	L8T
	0.75	VT / BK	1239	Run/Crank Ignition 1 Voltage	I	LV1

T8G Ignition Coil 7



3240115

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34770-0402
Service Connector: 19367596
Description: 4-Way F 1.5 MX Series, Sealed(BK)

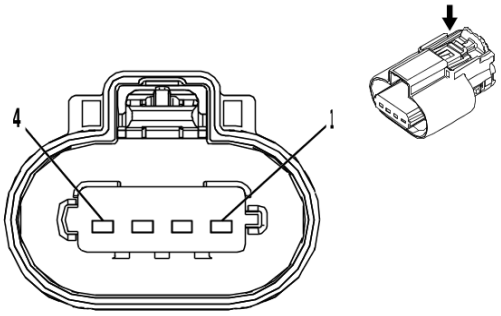
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8G Ignition Coil 7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK / BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	GN / GY	2127	Ignition Control 7	I	—
4	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	I	—

T8H Ignition Coil 8



3240115

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34770-0402
Service Connector: 19367596
Description: 4-Way F 1.5 MX Series, Sealed(BK)

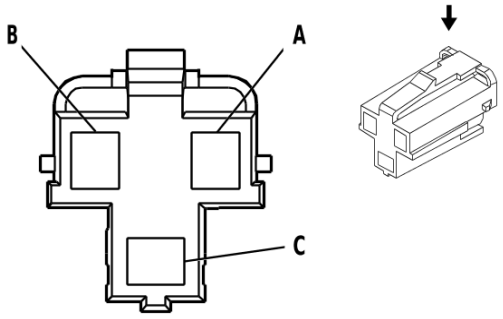
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8H Ignition Coil 8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK / GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	VT / WH	2128	Ignition Control 8	I	—
4	0.75	VT / BU	5292	Powertrain Main Relay Fused Supply Voltage 3	I	—

X80A Accessory Power Receptacle - Center Console 1



362748

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12176836
Service Connector: 19369281
Description: 3-Way F 280 Metri-Pack Series(GY)

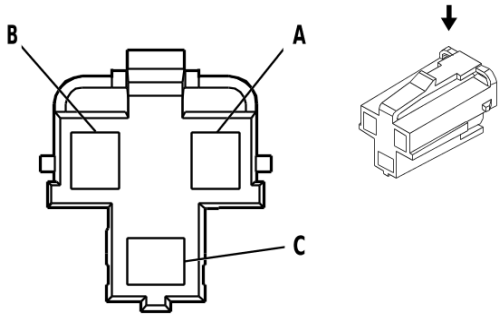
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X80A Accessory Power Receptacle - Center Console 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	RD / WH	640	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1	BK	550	Ground	I	—

X80B Accessory Power Receptacle - Center Console 2



362748

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12176836
Service Connector: 19369281
Description: 3-Way F 280 Metri-Pack Series(GY)

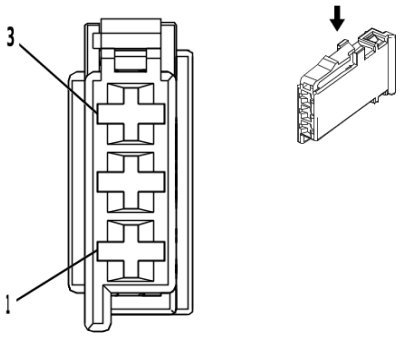
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X80B Accessory Power Receptacle - Center Console 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	RD / WH	1040	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1	BK	550	Ground	I	—

X81 Accessory Power Receptacle - 110V AC X1



2039656

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 1452142-1
Service Connector: 86790560
Description: 3-Way F 1.6 Micro-Timer Series(BK)

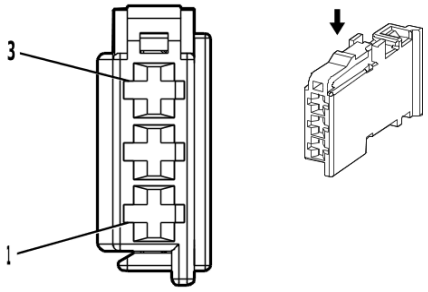
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

X81 Accessory Power Receptacle - 110V AC X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	6807	DC/AC Inverter Control	I	—
2	—	—	—	Not Occupied	—	—
3	1	BK	5683	120V AC Phase A	I	—

X81 Accessory Power Receptacle - 110V AC X2



2236412

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 0-1452142-2
Service Connector: 19367740
Description: 3-Way F 1.6 Timer Series(GY)

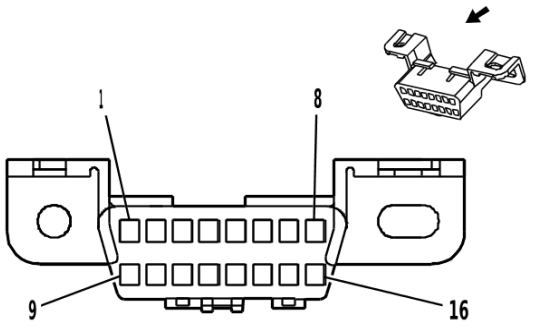
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

X81 Accessory Power Receptacle - 110V AC X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN	2266	DC/AC Inverter Control 2	I	—
2	—	—	—	Not Occupied	—	—
3	1	WH	5685	120V AC Neutral	I	—

X84 Data Link Connector



68793

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12110250
Service Connector: 12110250
Description: 16-Way F 150 Metri-Pack Series(BK)

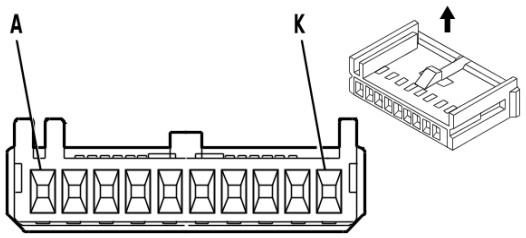
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13580059	J-35616-14 (GN)	J-38125-12A

X84 Data Link Connector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	BK / WH	351	Signal Ground	I	—
5	0.5	BK / WH	351	Signal Ground	I	—
6	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
7 - 13	—	—	—	Not Occupied	—	—
14	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
15	—	—	—	Not Occupied	—	—
16	0.8	RD / WH	640	Battery Positive Voltage	I	—

X85 Steering Wheel Air Bag Coil X1



1593397

Connector Part Information

Harness Type: Steering Column
OEM Connector: 15393433
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Micro-Pack Series(BK)

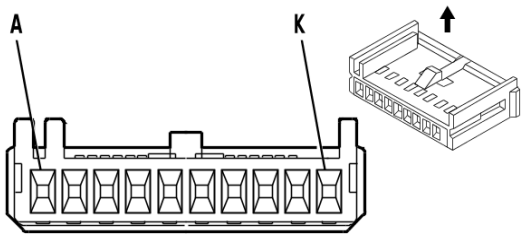
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

X85 Steering Wheel Air Bag Coil X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BK	350	Ground	I	—
B	—	TN	28	Horn Relay Control	I	—
C	—	GN / WH	7158	Cruise Control Indicator Dimming Signal	I	—
D - E	—	—	—	Not Occupied	—	—
F	—	PK	1444	12V Reference	I	—
G	—	BN	6136	Control	I	—
H	—	GN	6818	Steering Wheel Controls Signal 1	I	—
J	—	—	—	Not Occupied	—	—
K	—	GY	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—

X85 Steering Wheel Air Bag Coil X2



1593397

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: 15393433
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Micro-Pack Series(BK)

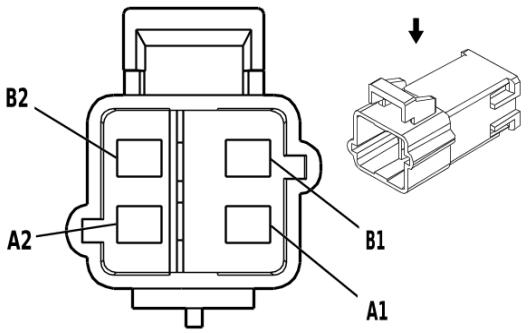
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

X85 Steering Wheel Air Bag Coil X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	GY	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
B	—	—	—	Not Occupied	—	—
C	—	GN	6818	Steering Wheel Controls Signal 1	I	—
D	—	BN	6136	Control	I	—
E	—	PK	1444	12V Reference	I	—
F - G	—	—	—	Not Occupied	—	—
H	—	GN / WH	7158	Cruise Control Indicator Dimming Signal	I	—
J	—	TN	28	Horn Relay Control	I	—
K	—	BK	350	Ground	I	—

X85 Steering Wheel Air Bag Coil X3



684931

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15336476
Service Connector: 88987998
Description: 4-Way M 280 Metri-Pack Series(YE)

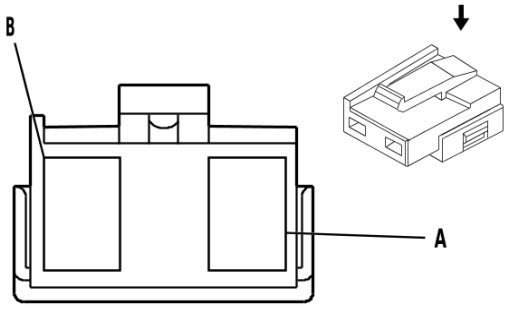
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-5 (PU)	No Tool Required

X85 Steering Wheel Air Bag Coil X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	TN	3021	Steering Wheel Air Bag Stage 1 High Control	I	—
A2	0.5	BN	3020	Steering Wheel Air Bag Stage 1 Low Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—

X87RB Sliding Door Jamb Contact Plate - Right Body - Cargo



38274

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12034343
Service Connector: 12101821
Description: 2-Way F 280 Metri-Pack Series(BK)

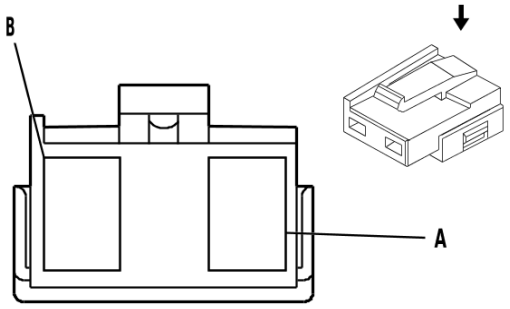
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X87RB Sliding Door Jamb Contact Plate - Right Body - Cargo

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

X87RB Sliding Door Jamb Contact Plate - Right Body - Cutaway



38274

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12034343
Service Connector: 12101821
Description: 2-Way F 280 Metri-Pack Series(BK)

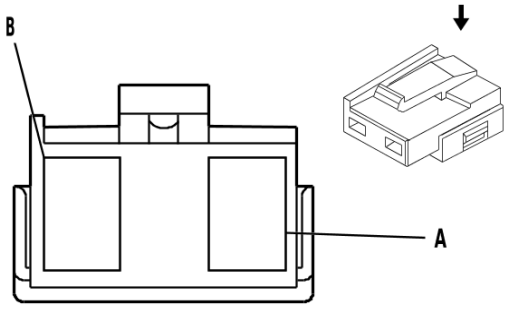
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X87RB Sliding Door Jamb Contact Plate - Right Body - Cutaway

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

X87RB Sliding Door Jamb Contact Plate - Right Body (E24 / YA2)



38274

Connector Part Information

Harness Type: Rear Side Door Wiring Harness
OEM Connector: 33148350
Service Connector: Service by Harness - See Part Catalog
Description: —

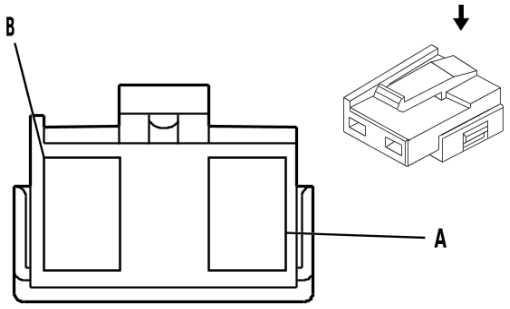
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-43 (RD)	No Tool Required

X87RB Sliding Door Jamb Contact Plate - Right Body (E24 / YA2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

X87RB Sliding Door Jamb Contact Plate - Right Body - Passenger



38274

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12034343
Service Connector: 12101821
Description: 2-Way F 280 Metri-Pack Series(BK)

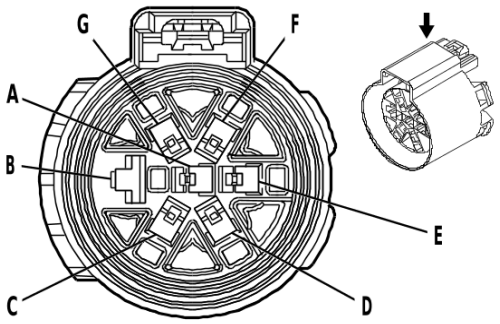
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X87RB Sliding Door Jamb Contact Plate - Right Body - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

X88 Trailer Connector



2056936

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 13857223
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed(BK)

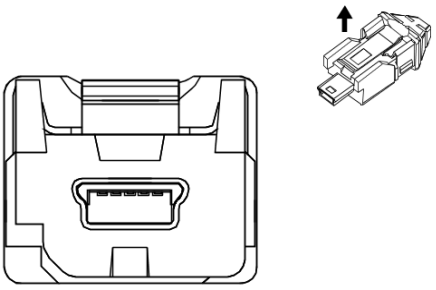
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

X88 Trailer Connector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	GN	1624	Trailer Backup Lamp Control	II	—
B	8	WH	22	Trailer Ground	I	—
C	3	BU	47	Trailer Auxiliary Control	II	—
D	1	GN	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	3	RD / BK	742	Battery Positive Voltage	II	—
F	1	BN	2109	Trailer Park Lamp Control	II	—
G	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—

X92 USB Receptacle



3270479

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB
OEM Connector: 13668063
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(BK)

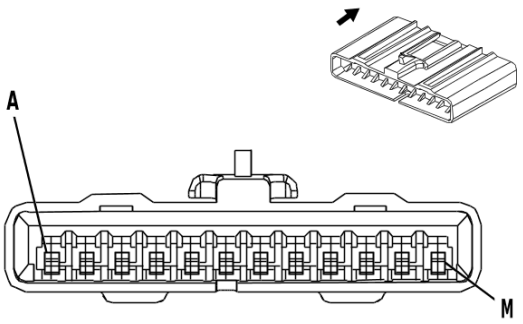
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X92 USB Receptacle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

Splice Pack Connector End Views
JX200 Splice Pack



966355

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12176461
Service Connector: 15305914
Description: 12-Way F 150 GT Series(BK)

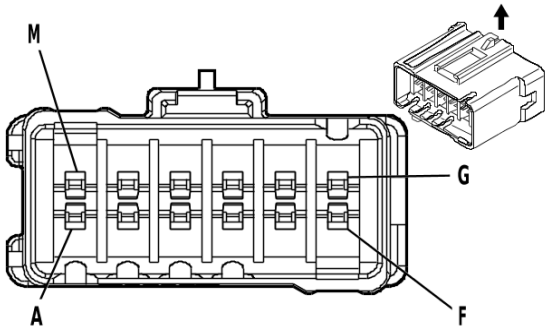
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13591480	J-35616-14 (GN)	J-38125-215A

JX200 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
B	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
C	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
D	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
E	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
F	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
G	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
H	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
J	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
K	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
L	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
M	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—

JX250 Splice Pack



803605

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15305288
Service Connector: 12167610
Description: 12-Way F 280 Metri-Pack Series(BK)

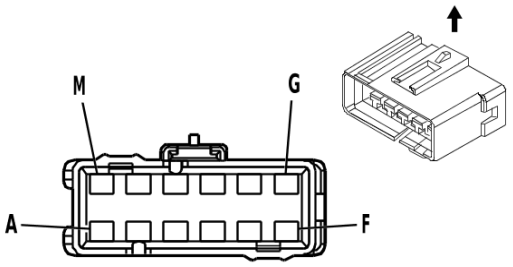
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13581349	J-35616-4A (PU)	J-38125-11A

JX250 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
B	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
C	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
D - J	—	—	—	Not Occupied	—	—
K	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
L	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
M	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—

JX347 Splice Pack



365987

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12191928
Service Connector: 88986418
Description: 12-Way F 280 Metri-Pack Series(BK)

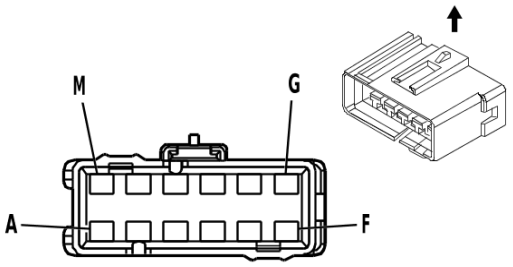
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579958	J-35616-4A (PU)	J-38125-11A
II	13581349	J-35616-4A (PU)	J-38125-11A
III	19330177	J-35616-4A (PU)	J-38125-11A

JX347 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	BK	450	Ground	III	—
B	—	—	—	Not Occupied	—	—
C	0.35	BK	450	Ground	II	—
D	0.35	BK	450	Ground	II	—
E	5	BK	450	Ground	I	—
F	—	—	—	Not Occupied	—	—
G	5	BK	450	Ground	I	—
H	—	—	—	Not Occupied	—	—
J	0.5	BK	450	Ground	II	—
K - L	—	—	—	Not Occupied	—	—
M	3	BK	450	Ground	III	—

JX348 Splice Pack



365987

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12191928
Service Connector: 88986418
Description: 12-Way F 280 Metri-Pack Series(BK)

Terminal Part Information

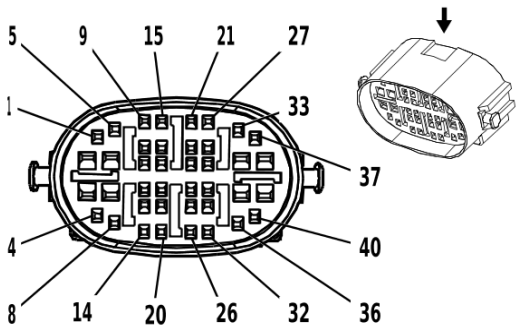
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575721	J-35616-4A (PU)	J-38125-553
II	13581349	J-35616-4A (PU)	J-38125-11A
III	19330177	J-35616-4A (PU)	J-38125-11A

JX348 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground	II	—
B	0.8	BK	1850	Ground	I	—
C	3	BK	1850	Ground	III	—
D	0.35	BK	1850	Ground	II	—
E	—	—	—	Not Occupied	—	—
F	0.5	BK	1850	Ground	II	—
G	0.5	BK / WH	2751	Signal Ground	II	—
H	—	—	—	Not Occupied	—	—
J	1	BK	1850	Ground	I	—
K - M	—	—	—	Not Occupied	—	—

Inline Harness Connector End Views

X100 Instrument Panel Wiring Harness to Engine Wiring Harness



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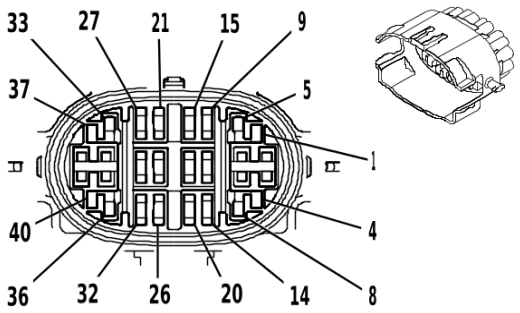


1713503

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13601803
Service Connector: 19166997
Description: 40-Way F 150, 280 GT Series, Sealed(BK)

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13605375
Service Connector: 19169297
Description: 40-Way M 150, 280 GT Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575354	J-35616-2A (GY)	J-38125-215A
II	13575404	J-35616-4A (PU)	J-38125-215A
III	13575412	J-35616-14 (GN)	J-38125-215A
IV	13575707	J-35616-4A (PU)	J-38125-36
V	13576407	J-35616-4A (PU)	J-38125-215A
VI	13580824	J-35616-4A (PU)	J-38125-553
VII	13575353	J-35616-5 (PU)	J-38125-215A
VIII	13575397	J-35616-3 (GY)	J-38125-215A
IX	13575443	J-35616-5 (PU)	J-38125-215A
X	13576364	J-35616-3 (GY)	J-38125-215A
XI	13580826	J-35616-5 (PU)	J-38125-215A
XII	19368625	J-35616-3 (GY)	J-38125-215A

X100 Instrument Panel Wiring Harness to Engine Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	WH / BU	6311	I	—	Cruise/ETC/ TCC Brake Signal	1	0.5	WH / BU	6311	VIII	—
2	0.8	OG	52	II	—	Blower Motor High Speed Control	2	1	WH / BK	52	XI	—
3	0.8	BU	72	II	—	Blower Motor Medium 2 Control	3	2	BU / YE	72	IX	—
4	0.5	OG	1732	I	—	Control Mod- ule 12V Reference 3	4	0.5	VT / RD	1732	VIII	—

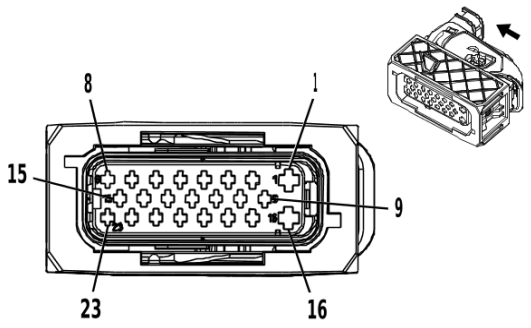
X100 Instrument Panel Wiring Harness to Engine Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.8	TN	63	II	—	Blower Motor Medium 1 Control	6	1	YE / BN	63	XI	—
7	2	BK	1250	V	—	Ground	7	2	BK	1250	IX	—
8	0.8	YE	60	III	—	Blower Motor Low Speed Control	8	1	YE	60	X	—
9 - 13	—	—	—	—	—	Not Occupied	9 - 13	—	—	—	—	—
14	0.5	GN	66	I	—	Air Conditioning Request Signal	14	0.5	BN	66	VIII	—
15	0.5	WH / BU	5986	I	—	Serial Data Communication Enable	15	0.5	WH / BU	5986	VIII	—
16	0.5	GN	66	I	—	Air Conditioning Request Signal	16	0.5	BN / WH	66	VIII	—
17	0.75	GN / GY	333	III	—	Brake Fluid Level Signal	17	0.75	GN / GY	333	X	—
18	0.5	BN / WH	419	I	—	Check Engine Indicator Control	18	0.5	BN / WH	419	VIII	—
19	0.5	BU	5985	I	—	Accessory Wake-Up Serial Data	19	0.5	VT / YE	5985	VIII	—
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
21	0.35	BK / BU	1271	IV	—	Accelerator Pedal Position Low Reference 1	21	0.5	BK / BU	1271	XII	—
22	0.35	WH / RD	1164	IV	—	Accelerator Pedal Position 5V Reference 1	22	0.5	WH / RD	1164	XII	—
23	0.35	BN / RD	1274	IV	—	Accelerator Pedal Position 5V Reference 2	23	0.5	BN / RD	1274	XII	—
24	0.5	BK / WH	451	I	—	Signal Ground	24	0.75	BK / WH	451	X	—
25 - 26	—	—	—	—	—	Not Occupied	25 - 26	—	—	—	—	—
27	0.35	YE / WH	1161	IV	—	Accelerator Pedal Position Signal 1	27	0.5	YE / WH	1161	XII	—
28	0.35	BK / VT	1272	IV	—	Accelerator Pedal Position Low Reference 2	28	0.5	BK / VT	1272	XII	—
29	0.35	GN / WH	1162	IV	—	Accelerator Pedal Position Signal 2	29	0.5	GN / WH	1162	XII	—

X100 Instrument Panel Wiring Harness to Engine Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
30 - 32	—	—	—	—	—	Not Occupied	30 - 32	—	—	—	—	—
33	0.5	BU	2500	I	—	High Speed GMLAN Serial Data [+] 1	33	0.5	BU	2500	VIII	—
34	0.5	BK / YE	407	VI	—	Sensor Low Reference	34	0.5	BK / GN	580	VII	—
35	0.5	GN / BK	735	VI	—	Ambient Air Temperature Sensor Signal 2	35	0.5	BU / GY	636	VII	—
36	0.5	BU	2500	I	—	High Speed GMLAN Serial Data [+] 1	36	0.5	BU	2500	VIII	—
37	0.5	WH	2501	I	—	High Speed GMLAN Serial Data [-] 1	37	0.5	WH	2501	VIII	—
38 - 39	—	—	—	—	—	Not Occupied	38 - 39	—	—	—	—	—
40	0.5	WH	2501	I	—	High Speed GMLAN Serial Data [-] 1	40	0.5	WH	2501	VIII	—

X101 Engine Wiring Harness to Chassis Wiring Harness



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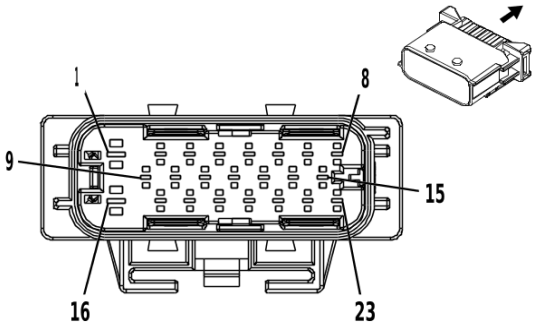


2906943

Connector Part Information

Harness Type: Engine Wiring Harness

OEM Connector: 13674800

Service Connector: 19300480

Description: 23-Way F 1.5 DSQ, 2.8 ATS Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Wiring Harness

OEM Connector: 13674783

Service Connector: Service by Harness - See Part Catalog

Description: 23-Way M 1.5 DSQ, 2.8 ATS Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19353105	J-35616-35 (VT)	J-38125-36
II	19368143	J-35616-14 (GN)	J-38125-215A
III	Not required	J-35616-3 (GY)	No Tool Required

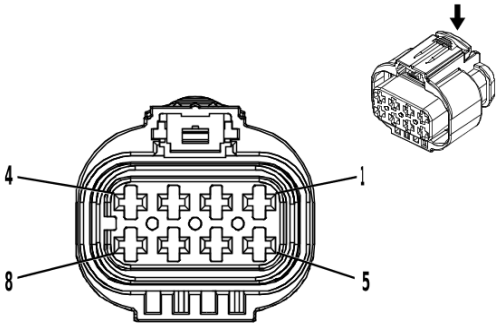
X101 Engine Wiring Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	WH / RD	480	I	—	Engine Control Vehicle Sensors 5 Volt Reference 1	1	—	—	—	—	—
2	0.5	BU	2500	II	—	High Speed GMLAN Serial Data [+] 1	2	0.5	BU	2500	III	—
3	0.5	WH	2501	II	—	High Speed GMLAN Serial Data [-] 1	3	0.5	WH	2501	III	—
4	0.5	YE	2375	II	—	Left Rear Outer Parking Assist Sensor Signal	4	0.5	YE	2375	III	—
5	0.5	YE / BU	2376	II	—	Left Rear Middle Parking Assist Sensor Signal	5	0.5	YE / BU	2376	III	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	0.5	BK / GY	2379	II	—	Object Sensor Low Reference	7	0.5	BK / GY	2379	III	—

X101 Engine Wiring Harness to Chassis Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	GN / GY	465	II	—	Fuel Pump Primary Relay Control	8	0.5	GN / GY	465	III	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	YE / WH	2377	II	—	Right Rear Middle Parking Assist Sensor Signal	10	0.5	YE / WH	2377	III	—
11	—	—	—	—	—	Not Occupied	11	—	—	—	—	—
12	0.5	VT / GN	4320	II	—	Powertrain Sensor Bus Enable	12	0.5	VT / GN	4320	III	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.5	BN / WH	2374	II	—	Object Sensor Voltage Reference	14	0.5	BN / WH	2374	III	—
15	0.5	YE / VT	2378	II	—	Right Rear Outer Parking Assist Sensor Signal	15	0.5	YE / VT	2378	III	—
16	0.5	BK / GY	626	I	—	Engine Control Vehicle Sensors Low Reference 1	16	—	—	—	—	—
17	0.5	BU / BN	4498	II	—	High Speed GMLAN Serial Data [+] 7	17	0.5	BU / BN	4498	III	—
18	0.5	WH	4499	II	—	High Speed GMLAN Serial Data [-] 7	18	0.5	WH	4499	III	—
19	—	—	—	—	—	Not Occupied	19	—	—	—	—	—
20	0.5	WH / BU	5986	II	—	Serial Data Communication Enable	20	0.5	WH / BU	5986	III	—
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
22	0.5	BU	2500	II	—	High Speed GMLAN Serial Data [+] 1	22	0.5	BU	2500	III	—
23	0.5	WH	2501	II	—	High Speed GMLAN Serial Data [-] 1	23	0.5	WH	2501	III	—

X102 Chassis Wiring Harness to Fuel Tank Wiring Harness



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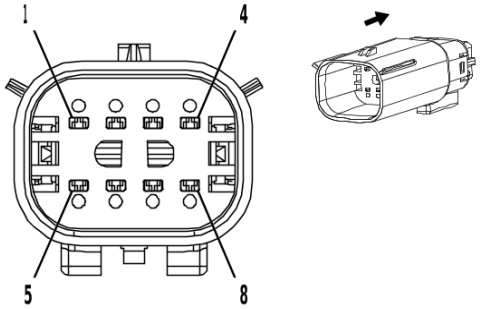


2667653

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 2-2109441-5
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series, Sealed(L-GY)

Connector Part Information

Harness Type: Fuel Tank Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M (L-GY)

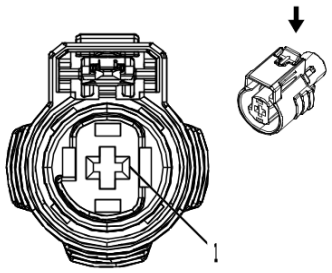
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required
III	Not required	No Tool Required	No Tool Required

X102 Chassis Wiring Harness to Fuel Tank Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	GY	120	I	—	Fuel Pump Control	1	2.5	GY	120	III	—
2	2.5	YE / GY	4137	I	—	Fuel Pump Supply Voltage Phase 2	2	2.5	YE / GY	4137	III	—
3	2.5	WH / BN	4138	I	—	Fuel Pump Supply Voltage Phase 3	3	2.5	WH / BN	4138	III	—
4	0.5	BK	7444	II	—	Fuel Pump Assembly Shield Ground	4	0.5	BK	7444	III	—
5	0.5	BU / VT	1589	II	—	Primary Fuel Level Sensor Signal	5	0.5	BU / VT	1589	III	—
6	0.5	BK / GN	6281	II	—	Fuel Level Sensor Low Reference	6	0.5	BK / GN	6281	III	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X103 Engine Wiring Harness to Starter Motor Jumper Wiring Harness



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2717134

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 2098198-5
Service Connector: 19300471
Description: 1-Way F 2.8 MCP Series, Sealed(BK)

Connector Part Information

Harness Type: Starter Motor Jumper Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M (BK)

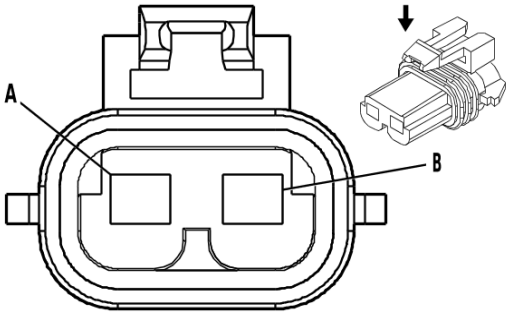
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	No Tool Required	No Tool Required

X103 Engine Wiring Harness to Starter Motor Jumper Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	4	YE	6	I	—	Starter Solenoid Crank Ignition Voltage	1	4	YE	6	II	—

X104 Instrument Panel Wiring Harness to Front Seat Wiring Harness



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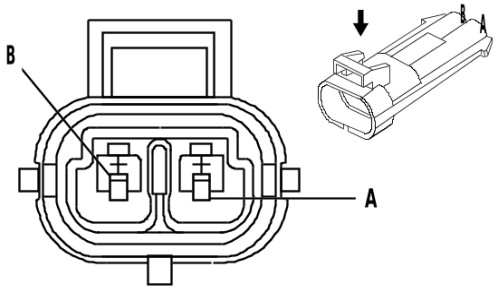


879383

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12077900
Service Connector: 12116247
Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

Connector Part Information

Harness Type: Front Seat Wiring Harness
OEM Connector: 15317807
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 280 Metri-Pack Series(BK)

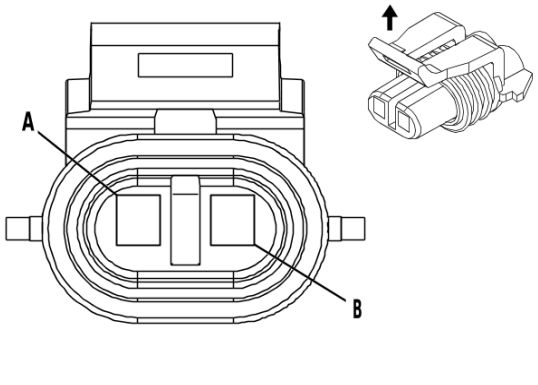
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X104 Instrument Panel Wiring Harness to Front Seat Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BU / WH	6619	I	—	Front Middle Impact Discriminating Sensor Low Reference	A	0.5	BU / WH	6619	II	—
B	0.5	BN / WH	6618	I	—	Front Middle Impact Discriminating Sensor Signal	B	0.5	BN / WH	6618	II	—

X109 Engine Wiring Harness to Underhood Lamp Wiring Harness



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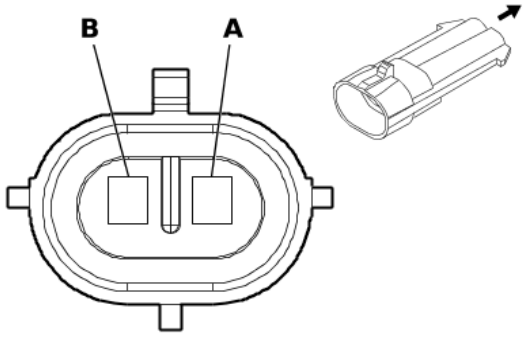


333041

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

Connector Part Information

Harness Type: Underhood Lamp Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M (BK)

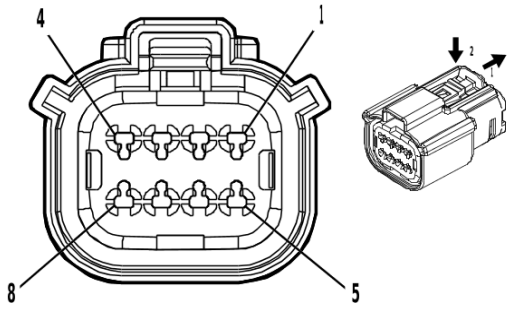
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	No Tool Required	No Tool Required

X109 Engine Wiring Harness to Underhood Lamp Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	VT / RD	1732	I	—	Control Module 12V Reference 3	A	0.5	OG	1732	II	—
B	0.75	BK	1250	I	—	Ground	B	0.75	BK	1250	II	—

X130 Engine Wiring Harness to Camshaft Position Sensor Jumper Wiring Harness



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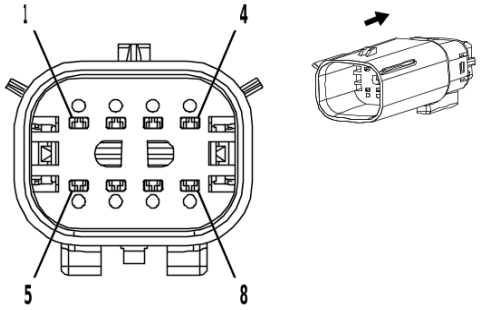


2667653

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 33472-4877
Service Connector: 84928314
Description: 8-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	No Tool Required	No Tool Required

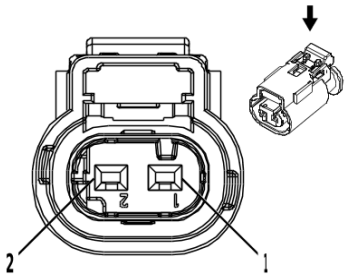
X130 Engine Wiring Harness to Camshaft Position Sensor Jumper Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY / BU	5300	I	—	Intake Camshaft Position Sensor 1 Voltage Reference	1	0.5	GY / BU	5300	II	—
2	0.5	BK / GN	5301	I	—	Intake Camshaft Position Sensor Low Reference 1	2	0.5	BK / GN	5301	II	—
3	0.5	YE / VT	5275	I	—	Intake Camshaft Position Sensor 1	3	0.5	YE / VT	5275	II	—
4	0.5	BU	179	I	—	Engine Oil Pump Control	4	0.5	BU	179	II	—
5	0.5	VT / BN	5284	I	—	Intake Camshaft Position Actuator Solenoid Valve 1	5	0.5	VT / BN	5284	II	—
6	0.5	BK / BN	6753	I	—	Camshaft Position Actuator Solenoid Valve W Low Reference	6	0.5	BK / BN	6753	II	—

X130 Engine Wiring Harness to Camshaft Position Sensor Jumper Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	VT / BU	5293	I	—	Powertrain Main Relay Fused Supply Voltage 4	7	0.5	VT / BU	5293	II	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X135 Engine Jumper Wiring Harness to Oil Pump Flow Control Solenoid Valve Wire Wiring Harness (L8T)



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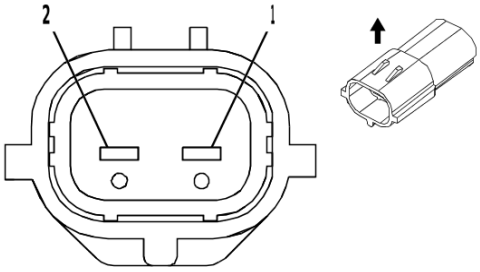


2684367

Connector Part Information

Harness Type: Engine Jumper Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Oil Pump Flow Control Solenoid Valve Wire Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M

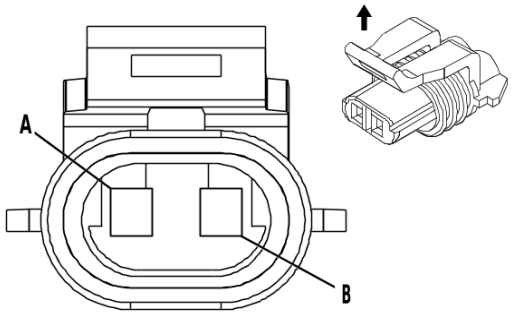
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	No Tool Required	No Tool Required

X135 Engine Jumper Wiring Harness to Oil Pump Flow Control Solenoid Valve Wire Wiring Harness (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	VT / BU	5293	I	—	Powertrain Main Relay Fused Supply Voltage 4	1	—	VT / BU	5293	II	—
2	—	BU	179	I	—	Engine Oil Pump Control	2	—	BU	179	II	—

X141 Instrument Panel Wiring Harness to Brake Fluid Level Indicator Wiring Harness



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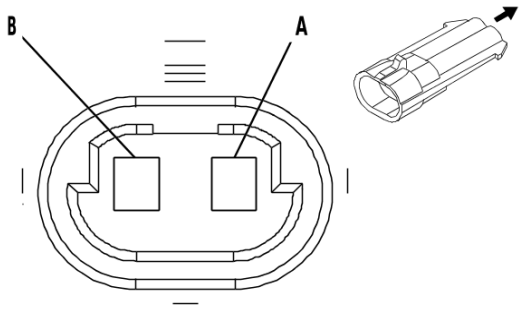


605500

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed(GY)

Connector Part Information

Harness Type: Brake Fluid Level Indicator Wiring Harness
OEM Connector: 12162343
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series, Sealed(GY)

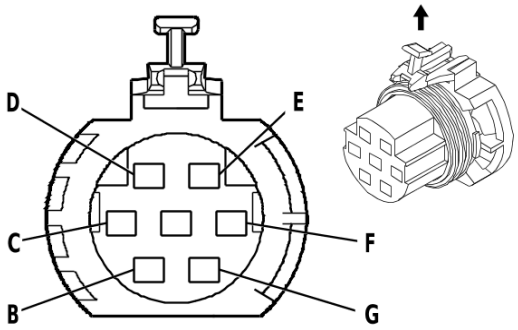
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X141 Instrument Panel Wiring Harness to Brake Fluid Level Indicator Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	TN / WH	33	I	—	Brake Warning Indicator Control	A	0.5	TN / WH	33	II	—
B	0.5	BK / WH	351	I	—	Signal Ground	B	0.5	BK	350	II	—

X150 Instrument Panel Wiring Harness to Forward Lamp Wiring Harness



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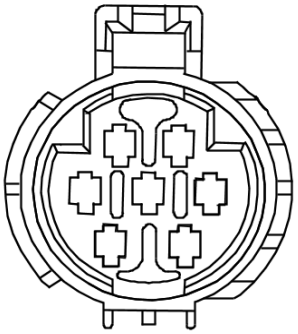


258231

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12110751
Service Connector: 12110751
Description: 7-Way F 280 Metri-Pack Flexlock Series, Sealed(BK)

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 12110753
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way M 280 Metri-Pack Series, Sealed(BK)

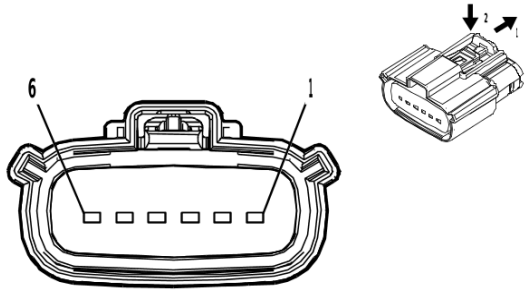
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X150 Instrument Panel Wiring Harness to Forward Lamp Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	PK / BK	109	I	—	Hood Ajar Switch Signal	A	0.5	BN / BK	109	II	—
B	0.5	PU	5531	I	—	Hood Closed Switch Signal	B	0.5	BK / BN	5531	II	—
C	0.5	BU / GY	636	I	—	Ambient Air Temperature Sensor Signal	C	0.5	BU / GY	636	II	—
D	0.5	BK / BU	61	I	—	Ambient Air Temperature Sensor Low Reference	D	0.5	BK / BU	61	II	—
E	0.5	BK / YE	407	I	—	Sensor Low Reference	E	0.5	BK / YE	407	II	—
F	0.5	GN / BK	735	I	—	Ambient Air Temperature Sensor Signal 2	F	0.5	GN / BK	735	II	—
G	—	—	—	—	—	Not Occupied	G	—	—	—	—	—

X155 Engine Wiring Harness to Engine Coolant Temperature Sensor Wiring Harness (L8T)



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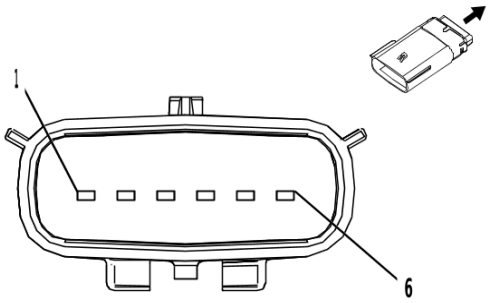


3277908

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 33471-6006
Service Connector: 86801953
Description: 6-Way F 1.5 Series, Sealed(BK)

Connector Part Information

Harness Type: Engine Coolant Temperature Sensor Wiring Harness
OEM Connector: 33481-6601
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M 1.5 MX Series, Sealed(BK)

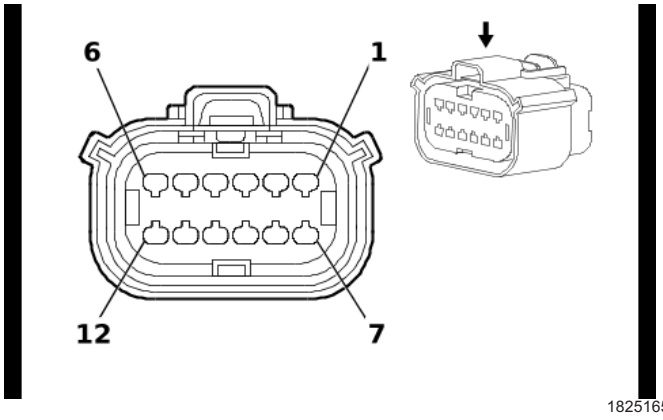
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X155 Engine Wiring Harness to Engine Coolant Temperature Sensor Wiring Harness (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BU	410	I	—	Engine Coolant Temperature Sensor Signal	1	0.5	BU	410	II	—
2	0.5	BK / YE	548	I	—	Engine Control Sensors Low Reference 1	2	0.5	BK / YE	548	II	—
3	0.5	YE / BN	331	I	—	Oil Pressure Sensor Signal	3	0.5	YE / BN	331	II	—
4	0.5	BK / YE	548	I	—	Engine Control Sensors Low Reference 1	4	0.5	BK / YE	548	II	—
5	0.5	WH / RD	480	I	—	Engine Control Vehicle Sensors 5 Volt Reference 1	5	0.5	WH / RD	480	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X160 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T)



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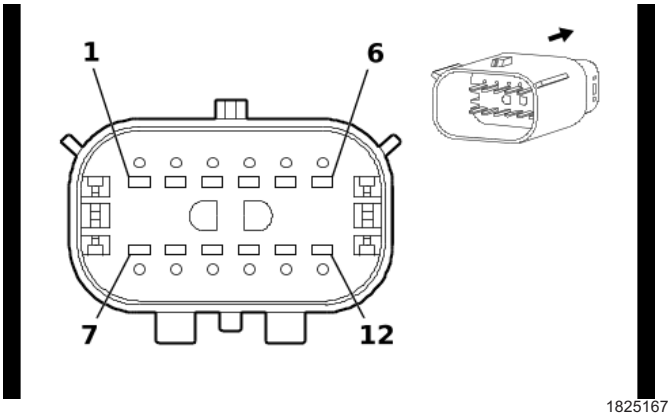


1825167

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 33472-1216
Service Connector: 19352907
Description: 12-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 13503542
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	85528055	J-35616-2A (GY)	J-38125-217
II	Not required	J-35616-3 (GY)	No Tool Required

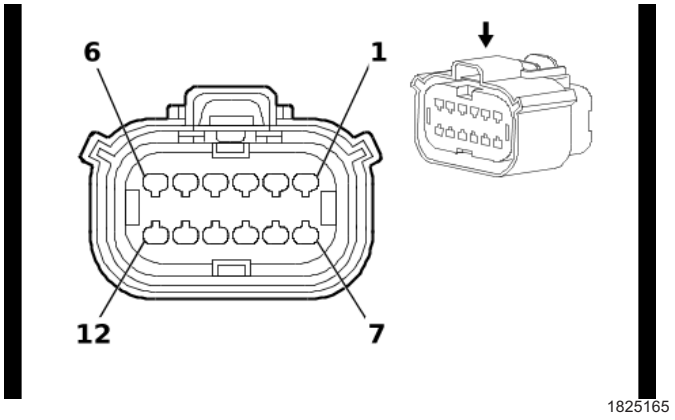
X160 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BN / WH	4901	I	—	Direct Fuel Injector High Voltage Supply Cylinder 1	1	0.75	BN / WH	4901	II	—
2	0.75	GN / GY	4903	I	—	Direct Fuel Injector High Voltage Supply Cylinder 3	2	0.75	GN / GY	4903	II	—
3	0.75	GN / WH	4905	I	—	Direct Fuel Injector High Voltage Supply Cylinder 5	3	0.75	GN / WH	4905	II	—
4	0.75	WH / YE	4907	I	—	Direct Fuel Injector High Voltage Supply Cylinder 7	4	0.75	WH / YE	4907	II	—
5	0.75	BN	4801	I	—	Direct Fuel Injector High Voltage Control Cylinder 1	5	0.75	BN	4801	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X160 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.75	GN	4803	I	—	Direct Fuel Injector High Voltage Control Cylinder 3	7	0.75	GN	4803	II	—
8	0.75	WH / GN	4805	I	—	Direct Fuel Injector High Voltage Control Cylinder 5	8	0.75	WH / GN	4805	II	—
9	0.75	YE / GY	4807	I	—	Direct Fuel Injector High Voltage Control Cylinder 7	9	0.75	YE / GY	4807	II	—
10	0.5	WH / RD	480	I	—	Engine Control Vehicle Sensors 5 Volt Reference 1	10	0.5	WH / RD	480	II	—
11	0.5	BU / WH	10786	I	—	Fuel Rail Pressure Sensor SENT 1 Signal	11	0.5	BU / WH	2918	II	—
12	0.5	BK / YE	548	I	—	Engine Control Sensors Low Reference 1	12	0.5	BK / YE	548	II	—

X160 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)



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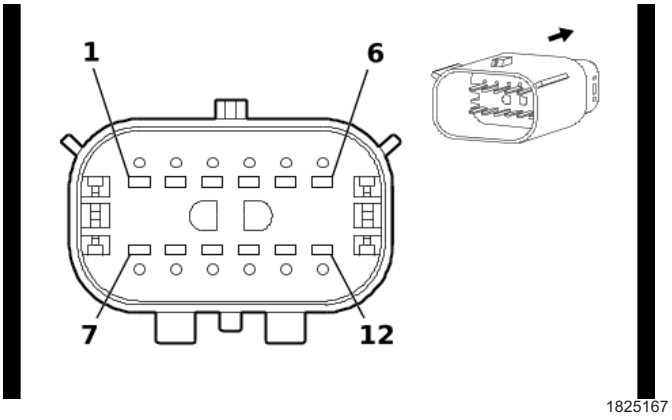


1825167

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 33472-1236
Service Connector: 19352907
Description: 12-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 33482-6216
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	85528055	J-35616-2A (GY)	J-38125-217
II	Not required	J-35616-3 (GY)	No Tool Required

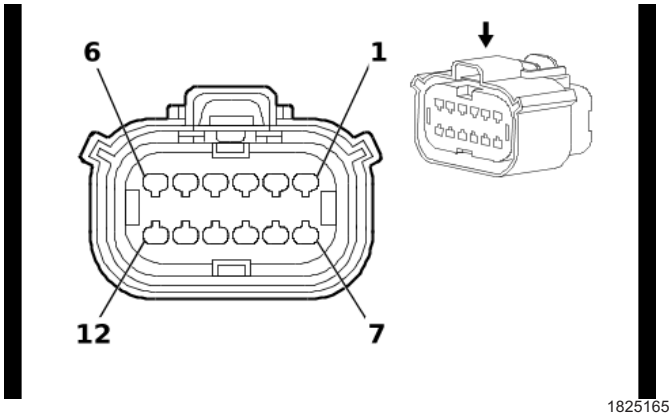
X160 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BN / WH	4901	I	—	Direct Fuel Injector High Voltage Supply Cylinder 1	2	0.8	BN / WH	4901	II	—
3	0.75	GN / GY	4903	I	—	Direct Fuel Injector High Voltage Supply Cylinder 3	3	0.8	GN / GY	4903	II	—
4	0.75	GN / WH	4905	I	—	Direct Fuel Injector High Voltage Supply Cylinder 5	4	0.8	GN / WH	4905	II	—
5	0.75	BN	4801	I	—	Direct Fuel Injector High Voltage Control Cylinder 1	5	0.8	BN	4801	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
8	0.75	GN	4803	I	—	Direct Fuel Injector High Voltage Control Cylinder 3	8	0.8	GN	4803	II	—

X160 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.75	WH / GN	4805	I	—	Direct Fuel Injector High Voltage Control Cylinder 5	9	0.8	WH / GN	4805	II	—
10	0.5	WH / RD	480	I	—	Engine Control Vehicle Sensors 5 Volt Reference 1	10	0.5	WH / RD	480	II	—
11	0.5	BU / WH	10786	I	—	Fuel Rail Pressure Sensor SENT 1 Signal	11	0.5	BU / WH	10786	II	—
12	0.5	BK / YE	548	I	—	Engine Control Sensors Low Reference 1	12	0.5	BLACK / GN	548	II	—

X161 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T)



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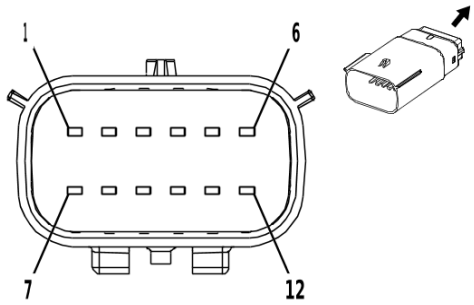


2687960

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 33472-1226
Service Connector: 19352907
Description: 12-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	85528055	J-35616-2A (GY)	J-38125-217
II	Not required	No Tool Required	No Tool Required

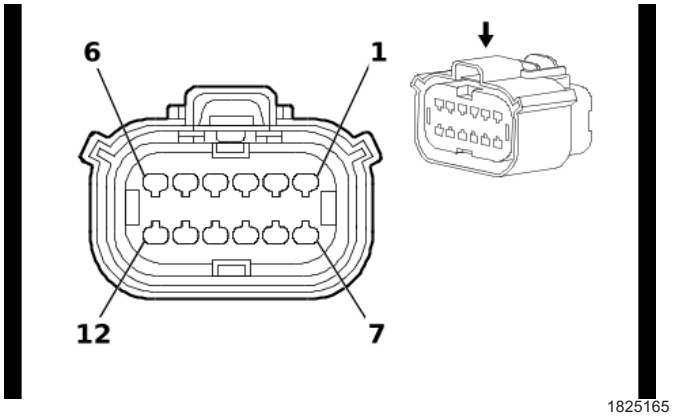
X161 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BU / GY	4902	I	—	Direct Fuel Injector High Voltage Supply Cylinder 2	1	0.75	BU / GY	4902	II	—
2	0.75	BU / WH	4904	I	—	Direct Fuel Injector High Voltage Supply Cylinder 4	2	0.75	BU / WH	4904	II	—
3	0.75	VT / GY	4906	I	—	Direct Fuel Injector High Voltage Supply Cylinder 6	3	0.75	VT / GY	4906	II	—
4	0.75	GY / WH	4908	I	—	Direct Fuel Injector High Voltage Supply Cylinder 8	4	0.75	GY / WH	4908	II	—
5	0.75	BU	4802	I	—	Direct Fuel Injector High Voltage Control Cylinder 2	5	0.75	BU	4802	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—

X161 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.75	GY / BU	4804	I	—	Direct Fuel Injector High Voltage Control Cylinder 4	8	0.75	GY / BU	4804	II	—
9	0.75	VT / GN	4806	I	—	Direct Fuel Injector High Voltage Control Cylinder 6	9	0.75	VT / GN	4806	II	—
10	0.75	GY	4808	I	—	Direct Fuel Injector High Voltage Control Cylinder 8	10	0.75	GY	4808	II	—
11	0.75	VT / BK	7300	I	—	High Pressure Fuel Pump Low Control	11	0.75	VT / BK	7300	II	—
12	0.75	YE	7301	I	—	High Pressure Fuel Pump High Control	12	0.75	YE	7301	II	—

X161 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)



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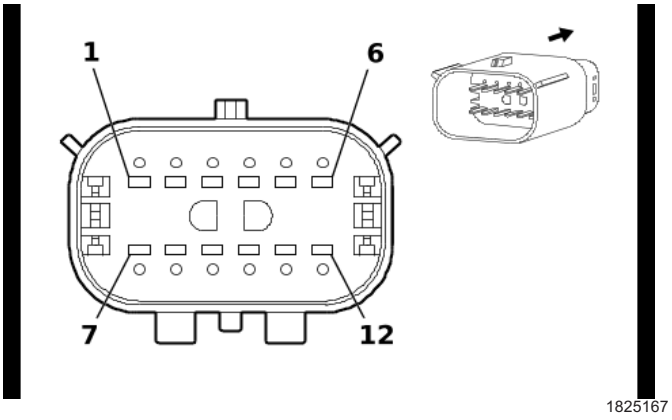


1825167

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 33472-1246
Service Connector: 19352907
Description: 12-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 13577093
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	85528055	J-35616-2A (GY)	J-38125-217
II	Not required	J-35616-3 (GY)	No Tool Required

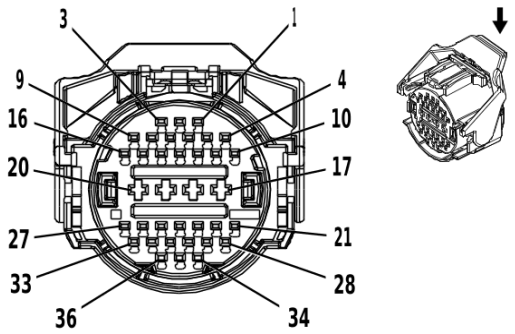
X161 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BU / GY	4902	I	—	Direct Fuel Injector High Voltage Supply Cylinder 2	2	0.8	BU / GY	4902	II	—
3	0.75	BU / WH	4904	I	—	Direct Fuel Injector High Voltage Supply Cylinder 4	3	0.8	BU / WH	4904	II	—
4	0.75	VT / GY	4906	I	—	Direct Fuel Injector High Voltage Supply Cylinder 6	4	0.8	VT / GY	4906	II	—
5	0.75	BU	4802	I	—	Direct Fuel Injector High Voltage Control Cylinder 2	5	0.8	BU	4802	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
8	0.75	GY / BU	4804	I	—	Direct Fuel Injector High Voltage Control Cylinder 4	8	0.8	GY / BU	4804	II	—

X161 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.75	VT / GN	4806	I	—	Direct Fuel Injector High Voltage Control Cylinder 6	9	0.8	VT / GN	4806	II	—
10	0.75	VT / BK	7300	I	—	High Pressure Fuel Pump Low Control	10	0.8	VT / BK	7300	II	—
11	0.75	YE	7301	I	—	High Pressure Fuel Pump High Control	11	0.8	YE	7301	II	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—

X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (L8T)



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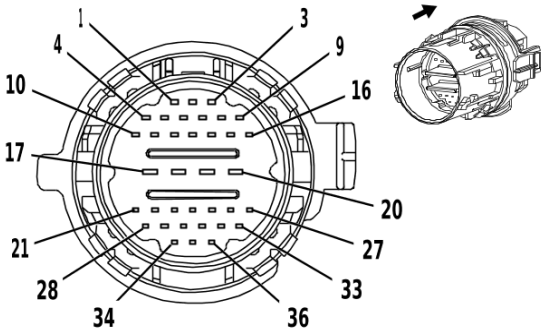


3977661

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 2138314-1
Service Connector: 19329922
Description: 36-Way F 1.2 MCON-CB, 2.8 MCP Series, Sealed(BK)

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 36-Way M (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575368	J-35616-35 (VT)	J-38125-36
II	19300445	J-35616-12 (BU)	J-38125-11A
III	Not required	No Tool Required	No Tool Required

X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN / WH	6380	II	—	Torque Converter Clutch Enable Solenoid Valve A Control	1	0.5	GN / WH	6380	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.5	VT / WH	422	II	—	Torque Converter Clutch Solenoid Valve Control	3	0.5	VT / WH	422	III	—
4	0.5	GN / WH	1530	II	—	Transmission Line Pressure Control Solenoid Valve Control	4	0.5	GN / WH	1530	III	—
5	0.5	BN	6400	II	—	Clutch Solenoid Valve A Control	5	0.5	BN	6400	III	—
6	0.5	BU	6401	II	—	Clutch Solenoid Valve B Control	6	0.5	BU	6401	III	—

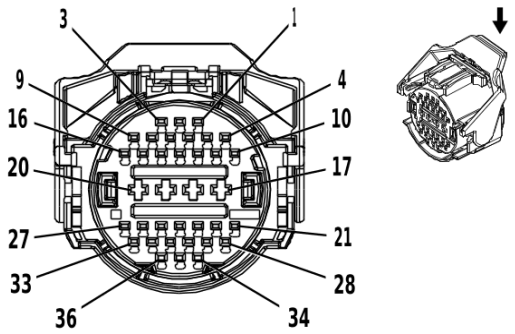
X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (L8T) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	YE / BN	6210	II	—	Torque Converter Clutch Enable Solenoid Valve B Control	7	0.5	YE / BN	6210	III	—
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
10	0.5	GY	6402	II	—	Clutch Solenoid Valve C Control	10	0.5	GY	6402	III	—
11	0.5	BK / BN	586	II	—	Transmission Fluid Temperature Sensor Low Reference	11	0.5	BK / BN	586	III	—
12	0.5	BN / WH	585	II	—	Transmission Fluid Temperature Sensor Signal	12	0.5	BN / WH	585	III	—
13	0.5	WH	4508	II	—	Transmission Clutch G Control	13	0.5	WH	4508	III	—
14	0.5	WH / BU	4507	II	—	Transmission Clutch H Control	14	0.5	WH / BU	4507	III	—
15 - 17	—	—	—	—	—	Not Occupied	15 - 17	—	—	—	—	—
18	0.5	GN / GY	6387	I	—	Transmission High Side Driver 1 Control	18	0.5	GN / GY	6387	III	—
19	0.5	GY / BN	6388	I	—	Transmission High Side Driver 2 Control	19	0.5	GY / BN	6388	III	—
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
21	0.5	GN / YE	3337	II	—	Transmission Internal Mode Switch Mode Control Y	21	0.5	GN / YE	3337	III	—
22	0.5	BU / WH	3338	II	—	Transmission Internal Mode Switch Mode Control X	22	0.5	BU / WH	3338	III	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	GY / BU	6358	II	—	Output Speed Signal	24	0.5	GY / BU	6358	III	—
25	0.5	YE / GN	4170	II	—	Transmission Output Shaft Speed Sensor Circuit 9V Reference	25	0.5	YE / GN	4170	III	—
26	0.5	GN / YE	6353	II	—	Input Speed Signal	26	0.5	GN / YE	6353	III	—

X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (L8T) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
27	0.5	YE / BU	4171	II	—	Transmission Input Shaft Speed Sensor Circuit 9V Reference	27	0.5	YE / BU	4171	III	—
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
29	0.5	WH / RD	480	II	—	Engine Control Vehicle Sensors 5 Volt Reference 1	29	0.5	WH / RD	480	III	—
30	0.5	BK / GY	626	II	—	Engine Control Vehicle Sensors Low Reference 1	30	0.5	BK / GY	626	III	—
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	0.5	GN / VT	4510	II	—	Transmission Intermediate Speed Signal	32	0.5	GN / VT	4510	III	—
33	—	—	—	—	—	Not Occupied	33	—	—	—	—	—
34	0.5	GY / RD	10817	II	—	Lubricant Circuit Pressure Sensor 5 Volt Reference	34	0.5	GY / RD	10817	III	—
35	0.5	BU / BK	10819	II	—	Lubricant Circuit Pressure Sensor Low Reference	35	0.5	BU / BK	10819	III	—
36	0.5	GN / YE	10816	II	—	Lubricant Circuit Pressure Sensor Signal	36	0.5	GN / YE	10816	III	—

X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (LV1)



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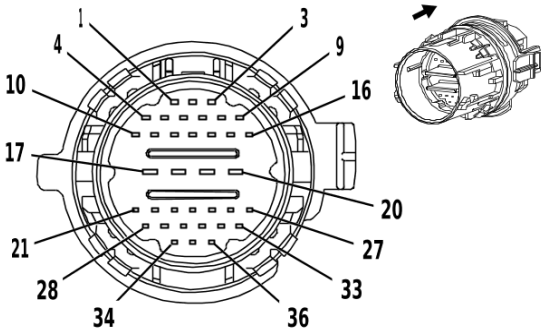


3977661

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 2138314-1
Service Connector: 19329922
Description: 36-Way F 1.2 MCON-CB, 2.8 MCP Series, Sealed(BK)

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 36-Way M (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575368	J-35616-35 (VT)	J-38125-36
II	19300445	J-35616-12 (BU)	J-38125-11A
III	Not required	No Tool Required	No Tool Required

X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (LV1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN / WH	6380	II	—	Torque Converter Clutch Enable Solenoid Valve A Control	1	0.5	GN / WH	6380	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.5	VT / WH	422	II	—	Torque Converter Clutch Solenoid Valve Control	3	0.5	VT / WH	422	III	—
4	0.5	GN / WH	1530	II	—	Transmission Line Pressure Control Solenoid Valve Control	4	0.5	GN / WH	1530	III	—
5	0.5	BN	6400	II	—	Clutch Solenoid Valve A Control	5	0.5	BN	6400	III	—
6	0.5	BU	6401	II	—	Clutch Solenoid Valve B Control	6	0.5	BU	6401	III	—

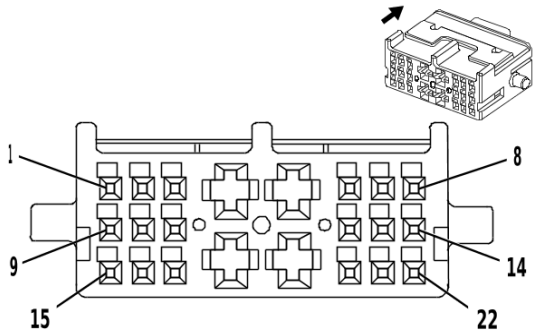
X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (LV1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	YE / BN	6210	II	—	Torque Converter Clutch Enable Solenoid Valve B Control	7	0.5	YE / BN	6210	III	—
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
10	0.5	GY	6402	II	—	Clutch Solenoid Valve C Control	10	0.5	GY	6402	III	—
11	0.5	BK / BN	586	II	—	Transmission Fluid Temperature Sensor Low Reference	11	0.5	BK / BN	586	III	—
12	0.5	BN / WH	585	II	—	Transmission Fluid Temperature Sensor Signal	12	0.5	BN / WH	585	III	—
13	0.5	WH	4508	II	—	Transmission Clutch G Control	13	0.5	WH	4508	III	—
14	0.5	WH / BU	4507	II	—	Transmission Clutch H Control	14	0.5	WH / BU	4507	III	—
15 - 17	—	—	—	—	—	Not Occupied	15 - 17	—	—	—	—	—
18	0.5	GN / GY	6387	I	—	Transmission High Side Driver 1 Control	18	0.5	GN / GY	6387	III	—
19	0.75	GY / BN	6388	I	—	Transmission High Side Driver 2 Control	19	0.75	GY / BN	6388	III	—
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
21	0.5	GN / YE	3337	II	—	Transmission Internal Mode Switch Mode Control Y	21	0.5	GN / YE	3337	III	—
22	0.5	BU / WH	3338	II	—	Transmission Internal Mode Switch Mode Control X	22	0.5	BU / WH	3338	III	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	GY / BU	6358	II	—	Output Speed Signal	24	0.5	GY / BU	6358	III	—
25	0.5	YE / GN	4170	II	—	Transmission Output Shaft Speed Sensor Circuit 9V Reference	25	0.5	YE / GN	4170	III	—
26	0.5	GN / YE	6353	II	—	Input Speed Signal	26	0.5	GN / YE	6353	III	—

X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (LV1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
27	0.5	YE / BU	4171	II	—	Transmission Input Shaft Speed Sensor Circuit 9V Reference	27	0.5	YE / BU	4171	III	—
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
29	0.5	WH / RD	480	II	—	Engine Control Vehicle Sensors 5 Volt Reference 1	29	0.5	WH / RD	480	III	—
30	0.5	BK / GY	626	II	—	Engine Control Vehicle Sensors Low Reference 1	30	0.5	BK / GY	626	III	—
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	0.5	GN / VT	4510	II	—	Transmission Intermediate Speed Signal	32	0.5	GN / VT	4510	III	—
33	—	—	—	—	—	Not Occupied	33	—	—	—	—	—
34	0.5	GY / RD	10817	II	—	Lubricant Circuit Pressure Sensor 5 Volt Reference	34	0.5	GY / RD	10817	III	—
35	0.5	BU / BK	10819	II	—	Lubricant Circuit Pressure Sensor Low Reference	35	0.5	BU / BK	10819	III	—
36	0.5	GN / YE	10816	II	—	Lubricant Circuit Pressure Sensor Signal	36	0.5	GN / YE	10816	III	—

X176 Automatic Transmission Wiring Harness to Automatic Transmission Wiring Harness (MTH / N8X)



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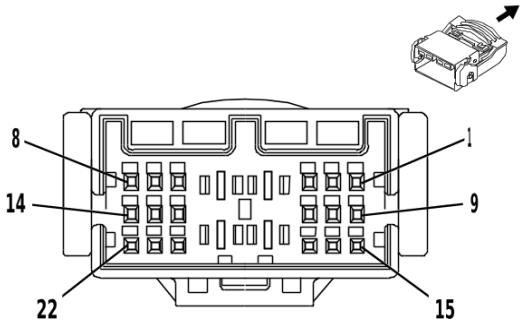


3977770

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 1897543-1
Service Connector: Service by Harness - See Part Catalog
Description: 22-Way F 0.64 Micro-Quadlock, 2.8 Micro-Power Series(NA)

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 1897540-1
Service Connector: Service by Harness - See Part Catalog
Description: 22-Way M 0.64 Micro-Quadlock, 2.8 Micro-Power Series(NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required
II	Not required	J-35616-64B (L-BU)	No Tool Required

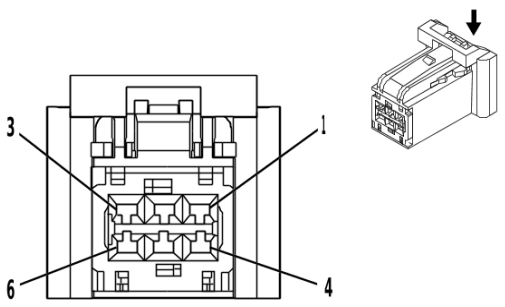
X176 Automatic Transmission Wiring Harness to Automatic Transmission Wiring Harness (MTH / N8X)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	GN / WH	6380	I	—	Torque Converter Clutch Enable Solenoid Valve A Control	1	—	GN / WH	6380	II	—
2	—	BU / WH	3338	I	—	Transmission Internal Mode Switch Mode Control X	2	—	BU / WH	3338	II	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—
4	—	GN / GY	6387	I	—	Transmission High Side Driver 1 Control	4	—	GN / GY	6387	II	—
5	—	WH / RD	596	I	—	5V Reference	5	—	WH / RD	596	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	—	WH / BU	4507	I	—	Transmission Clutch H Control	7	—	WH / BU	4507	II	—

X176 Automatic Transmission Wiring Harness to Automatic Transmission Wiring Harness (MTH / N8X) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	—	GY / GN	6403	I	—	Clutch Solenoid Valve D Control	8	—	GY / GN	6403	II	—
9	—	WH	4508	I	—	Transmission Clutch G Control	9	—	WH	4508	II	—
10	—	YE / BN	6210	I	—	Torque Converter Clutch Enable Solenoid Valve B Control	10	—	YE / BN	6210	II	—
11	—	GN / YE	3337	I	—	Transmission Internal Mode Switch Mode Control Y	11	—	GN / YE	3337	II	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—
13	—	GY	6402	I	—	Clutch Solenoid Valve C Control	13	—	GY	6402	II	—
14	—	YE / BN	6404	I	—	Clutch Solenoid Valve E Control	14	—	YE / BN	6404	II	—
15	—	BN / WH	585	I	—	Transmission Fluid Temperature Sensor Signal	15	—	BN / WH	585	II	—
16	—	OG / BK	586	I	—	Transmission Fluid Temperature Sensor Low Reference	16	—	OG / BK	586	II	—
17	—	—	—	—	—	Not Occupied	17	—	—	—	—	—
18	—	GY / BN	6388	I	—	Transmission High Side Driver 2 Control	18	—	GY / BN	6388	II	—
19	—	—	—	—	—	Not Occupied	19	—	—	—	—	—
20	—	BK / GY	3927	I	—	Transmission Internal Mode Switch Feedback Signal	20	—	BK / GY	3927	II	—
21	—	BN	6400	I	—	Clutch Solenoid Valve A Control	21	—	BN	6400	II	—
22	—	BU	6401	I	—	Clutch Solenoid Valve B Control	22	—	BU	6401	II	—

X178 Automatic Transmission Wiring Harness to Automatic Transmission Output Speed Sensor Wiring Harness (MTH / N8X)



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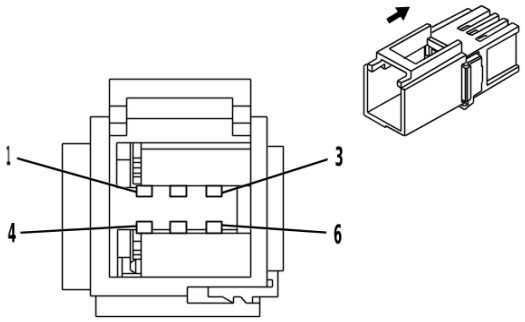


3977959

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 33134940
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.2 OCS Series(NA)

Connector Part Information

Harness Type: Automatic Transmission Output Speed Sensor Wiring Harness
OEM Connector: 13955963
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M 0.64 II Series(GY)

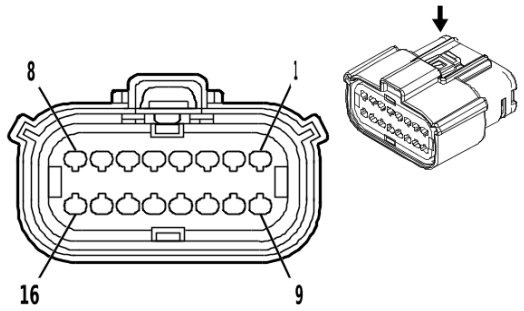
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-65B (L-BU)	No Tool Required

X178 Automatic Transmission Wiring Harness to Automatic Transmission Output Speed Sensor Wiring Harness (MTH / N8X)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	GY / BU	6358	I	—	Output Speed Signal	1	—	YE	6358	II	—
2	—	YE / GN	4170	I	—	Transmission Output Shaft Speed Sensor Circuit 9V Reference	2	—	RD	4170	II	—
3	—	YE / GN	4170	I	—	Transmission Output Shaft Speed Sensor Circuit 9V Reference	3	—	WH	4170	II	—
4	—	WH / RD	4171	I	—	Transmission Input Shaft Speed Sensor Circuit 9V Reference	4	—	WH	4171	II	—
5	—	GN / YE	6353	I	—	Input Speed Signal	5	—	GN	6353	II	—
6	—	GN / VT	4510	I	—	Transmission Intermediate Speed Signal	6	—	BK	4510	II	—

X185 Instrument Panel Wiring Harness to Chassis Wiring Harness



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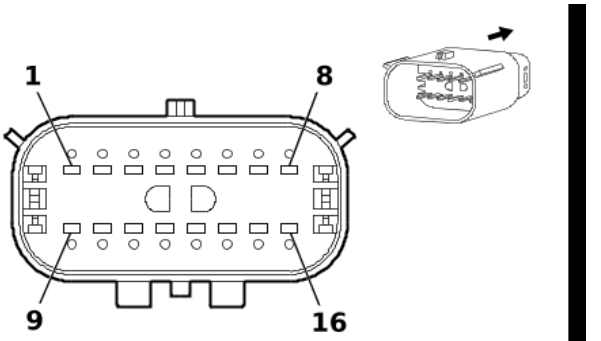


2548390

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 33472-1606
Service Connector: 13584788
Description: 16-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 33482-8601
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M 1.5 MX Series, Sealed(BK)

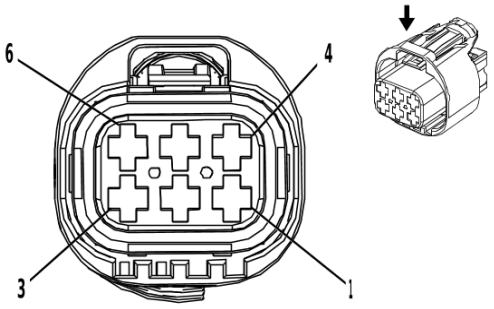
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368973	J-35616-2A (GY)	J-38125-217
II	Not required	J-35616-3 (GY)	No Tool Required

X185 Instrument Panel Wiring Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	RD / GN	3140	I	—	Battery Positive Voltage	1	0.5	RD / GN	3140	II	—
2	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	2	0.5	GN	5060	II	—
3 - 7	—	—	—	—	—	Not Occupied	3 - 7	—	—	—	—	—
8	0.5	BU / YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	8	0.5	BU / YE	6105	II	—
9	0.5	GY / YE	5853	I	—	Driver Side Side Object Detection LED Signal 1	9	0.5	GY / YE	5853	II	—
10	0.5	GY	5861	I	—	Passenger Side Object Detection LED Signal 1	10	0.5	GY	5861	II	—
11 - 14	—	—	—	—	—	Not Occupied	11 - 14	—	—	—	—	—
15	0.5	GN / BN	2087	I	—	Multi-axis Acceleration Sensor Supply Voltage	15	0.5	GN / BN	2087	II	—
16	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	16	0.5	WH	6106	II	—

X190 Accessory Wiring Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7)



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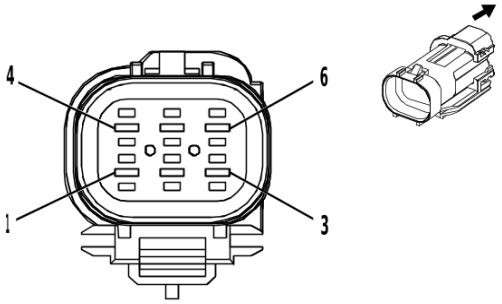


2042939

Connector Part Information

Harness Type: Accessory Wiring Harness

OEM Connector: 1452327-1

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 2.8 Junior Power Timer Series, Sealed(BK)

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Wiring Harness Extension Harness

OEM Connector: 1452324-1

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M 2.8 Series, Sealed(BK)

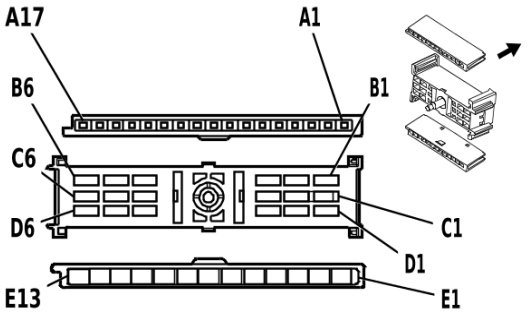
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X190 Accessory Wiring Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BU	6842	I	—	Auxiliary Device Relay 1 Control	1	0.5	BK / BU	6842	II	—
2	2.5	GN	6839	I	—	Auxiliary Device 1 Switched Voltage	2	2.5	GN	6839	II	—
3	0.5	BU	6843	I	—	Auxiliary Device Relay 2 Control	3	0.5	BU	6843	II	—
4	2.5	GN	6840	I	—	Auxiliary Device 2 Switched Voltage	4	2.5	GN	6840	II	—
5	1	RD / WH	5440	I	—	Battery Positive Voltage	5	1	RD / WH	5440	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X200 Steering Wheel Air Bag Coil Jumper Wiring Harness to Instrument Panel Wiring Harness



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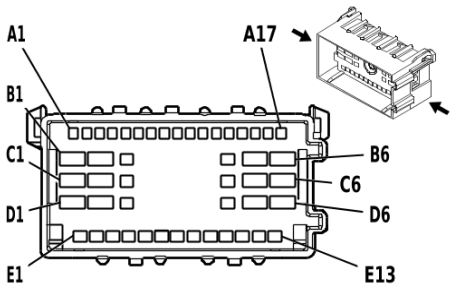


510556

Connector Part Information

Harness Type: Steering Wheel Air Bag Coil Jumper Wiring Harness

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F

Connector Part Information

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 15492579

Service Connector: 86532982

Description: 48-Way M 150, 280, 630 Metri-Pack Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	13505668	J-35616-3 (GY)	J-38125-12A
III	13575715	J-35616-5 (PU)	J-38125-11A
IV	19330180	J-35616-43 (RD)	J-38125-11A

X200 Steering Wheel Air Bag Coil Jumper Wiring Harness to Instrument Panel Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.35	TN	28	I	—	Horn Relay Control	A1	0.35	TN	28	II	—
A2	—	—	—	—	—	Not Occupied	A2	—	—	—	—	—
A3	0.35	PK	1444	I	—	12V Reference	A3	0.35	PK	1444	II	—
A4	0.35	PU	5526	I	—	Tap Up/Tap Down Switch Signal	A4	0.35	PU	5526	II	—
A5	—	—	—	—	—	Not Occupied	A5	—	—	—	—	—
A6	0.5	GN / BN	2087	I	—	Multi-axis Acceleration Sensor Supply Voltage	A6	0.5	GN / BN	2087	II	—
A7 - A8	—	—	—	—	—	Not Occupied	A7 - A8	—	—	—	—	—
A9	0.35	PK	3	I	—	Run/Crank Ignition 1 Voltage	A9	0.35	PK	3	II	—

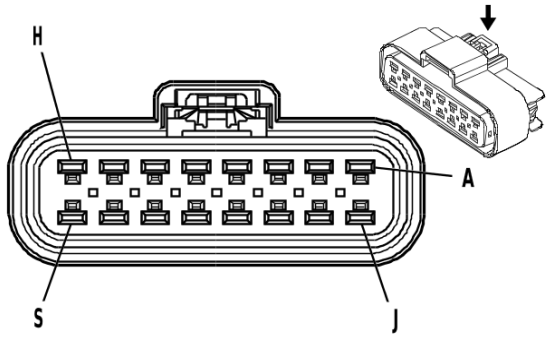
X200 Steering Wheel Air Bag Coil Jumper Wiring Harness to Instrument Panel Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1-0	—	—	—	—	—	Not Occupied	A1-0	—	—	—	—	—
A1-1	0.35	GN	6818	I	—	Steering Wheel Controls Signal 1	A11	0.35	GN	6818	II	—
A1-2	—	—	—	—	—	Not Occupied	A1-2	—	—	—	—	—
A1-3	0.35	GN / WH	7158	I	—	Cruise Control Indicator Dimming Signal	A1-3	0.35	GN / WH	7158	II	—
A1-4	—	—	—	—	—	Not Occupied	A1-4	—	—	—	—	—
A1-5	0.35	BN	6136	I	—	Control	A1-5	0.35	BN	6136	II	—
A1-6	—	—	—	—	—	Not Occupied	A1-6	—	—	—	—	—
A1-7	0.35	GY	1884	I	—	Cruise Control Set/ Coast/Resume/Accelerate Switch Signal	A1-7	0.35	GY	1884	II	—
B1	0.35	RD / WH	540	I	—	Battery Positive Voltage	B1	0.35	RD / WH	540	IV	—
B2	—	—	—	—	—	Not Occupied	B2	—	—	—	—	—
B3	0.35	WH	111	I	—	Hazard Warning Switch Signal	B3	0.35	WH	111	III	—
B4 - B5	—	—	—	—	—	Not Occupied	B4 - B5	—	—	—	—	—
B6	0.35	PK	1020	I	—	Off/Run/ Crank Ignition Voltage	B6	0.35	PK	1020	IV	—
C1	0.35	WH	530	I	—	Off/Run/ Crank Ignition Voltage	C1	0.35	WH	530	IV	—
C2	—	—	—	—	—	Not Occupied	C2	—	—	—	—	—
C3	0.35	YE	307	I	—	Headlamp Switch Flash Signal	C3	0.35	YE	307	III	—
C4 - C5	—	—	—	—	—	Not Occupied	C4 - C5	—	—	—	—	—
C6	0.35	BN	4	I	—	Accessory Ignition Voltage	C6	0.35	BN	4	IV	—
D1	0.35	TN / BK	6009	I	—	Windshield Wiper Switch Low Reference	D1	0.35	TN / BK	6009	IV	—
D2	—	—	—	—	—	Not Occupied	D2	—	—	—	—	—

X200 Steering Wheel Air Bag Coil Jumper Wiring Harness to Instrument Panel Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
D3	0.35	YE	525	I	—	High Beam Select Switch Low Beam Signal	D3	0.35	YE	525	III	—
D4	0.5	TN / WH	816	I	—	Brake Transmission Shift Interlock Solenoid Actuator Control	D4	0.5	TN / WH	816	III	—
D5	—	—	—	—	—	Not Occupied	D5	—	—	—	—	—
D6	0.35	PK	94	I	—	Windshield Washer Switch Signal	D6	0.35	PK	94	IV	—
E1	0.5	BK	350	I	—	Ground	E1	0.5	BK	350	III	—
E2	—	—	—	—	—	Not Occupied	E2	—	—	—	—	—
E3	0.5	BK / WH	351	I	—	Signal Ground	E3	0.5	BK / WH	351	III	—
E4	0.5	BU / YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	E4	0.5	BU / YE	6105	III	—
E5	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	E5	0.5	WH	6106	III	—
E6	0.5	BU / YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	E6	0.5	BU / YE	6105	III	—
E7	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	E7	0.5	WH	6106	III	—
E8	0.35	GN	663	I	—	Hazard Switch Left Turn Signal	E8	0.35	GN	663	III	—
E9	0.35	TN	664	I	—	Hazard Switch Right Turn Signal	E9	0.35	TN	664	III	—
E1-0	—	—	—	—	—	Not Occupied	E1-0	—	—	—	—	—
E1-1	0.35	BU	1714	I	—	Windshield Wiper Switch Low Signal	E11	0.35	BU	1714	III	—
E1-2	0.35	GN	1715	I	—	Windshield Wiper Switch High Signal	E1-2	0.35	GN	1715	III	—
E1-3	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	E1-3	0.35	GN	5060	III	—

X202 Instrument Panel Wiring Harness to Engine Wiring Harness



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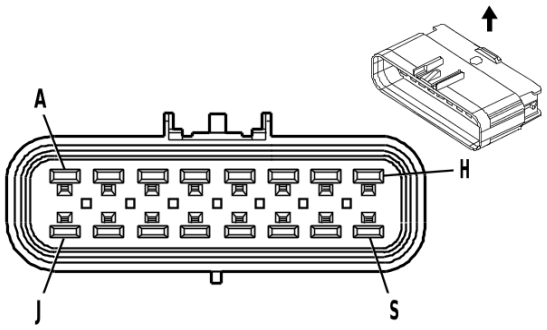


847270

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15326666
Service Connector: 15326666
Description: 16-Way F 280 GT Series, Sealed(BK)

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 15326667
Service Connector: 88986347
Description: 16-Way M 280 GT Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575404	J-35616-4A (PU)	J-38125-215A
II	13580824	J-35616-4A (PU)	J-38125-553
III	13575353	J-35616-5 (PU)	J-38125-215A

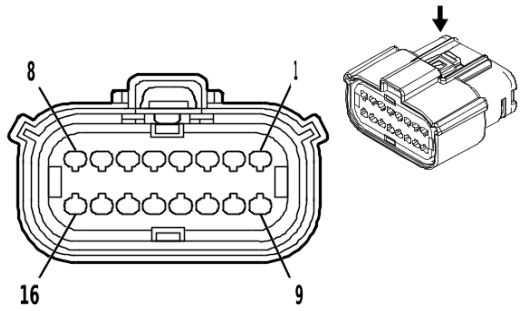
X202 Instrument Panel Wiring Harness to Engine Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	YE / VT	2378	II	—	Right Rear Outer Parking Assist Sensor Signal	A	0.5	YE / VT	2378	III	—
B	0.5	YE / WH	2377	II	—	Right Rear Middle Parking Assist Sensor Signal	B	0.5	YE / WH	2377	III	—
C	0.5 0.8	RD / WH BK	840 2840	II I	— —	Battery Positive Voltage Battery Positive Voltage	C	0.5	RD / BU	840	III	—
D - E	—	—	—	—	—	Not Occupied	D - E	—	—	—	—	—
F	0.5	BN	5360	II	—	Brake Apply Sensor Low Reference	F	0.5	BK / GY	626	III	—
G	0.5	BN / WH	2374	II	—	Object Sensor Voltage Reference	G	0.5	BN / WH	2374	III	—
H	0.5	YE	2375	II	—	Left Rear Outer Parking Assist Sensor Signal	H	0.5	YE	2375	III	—

X202 Instrument Panel Wiring Harness to Engine Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
J	0.5	BK / GY	2379	II	—	Object Sensor Low Reference	J	0.5	BK / GY	2379	III	—
K - L	—	—	—	—	—	Not Occupied	K - L	—	—	—	—	—
M	0.5	RD / WH	4892	II	—	Auxiliary Battery Relay Control	M	0.5	RD / WH	4892	III	—
N	—	—	—	—	—	Not Occupied	N	—	—	—	—	—
P	0.5	YE	5361	II	—	Brake Apply Sensor Signal	P	0.5	WH / GN	5380	III	—
R	0.5	WH	5359	II	—	Brake Apply Sensor Control	R	0.5	BU / RD	460	III	—
S	0.5	YE / BU	2376	II	—	Left Rear Middle Parking Assist Sensor Signal	S	0.5	YE / BU	2376	III	—

X204 Body Wiring Harness to Roof Console Wiring Harness



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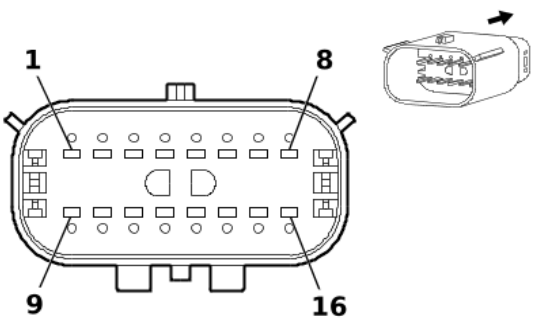

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Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33472-1606
Service Connector: 13584788
Description: 16-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 33482-8601
Service Connector: 19369662
Description: 16-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368973	J-35616-2A (GY)	J-38125-217
II	86800300	J-35616-3 (GY)	J-38125-217

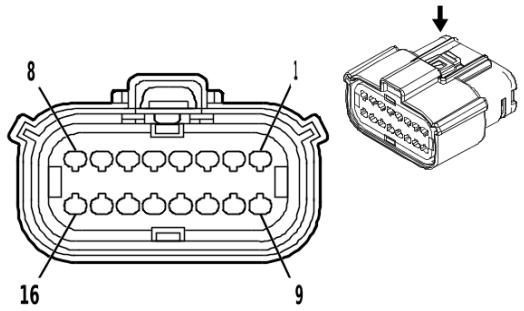
X204 Body Wiring Harness to Roof Console Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35 0.5	BU BU	7641 7641	I I	UVC UVC- (UEU/ UFL)	Frontview Camera 2 Signal [+] Frontview Camera 2 Signal [+]	1	0.5 0.5	BU BU	7641 7641	II II	UVC UVC- (UEU/ UFL)
2	0.35 0.5	BU BU	7642 7642	I I	UVC UVC- (UEU/ UFL)	Frontview Camera 2 Signal [-] Frontview Camera 2 Signal [-]	2	0.5 0.5	BU BU	7642 7642	II II	UEU/ UFL UVC- (UEU/ UFL)
3	0.5	BK	6799	I	—	Camera Shield Ground	3	0.5	BK	6799	II	—
4	—	—	—	—	—	Not Occu-pied	4	—	—	—	—	—
5	0.5 0.5	PK PK	239 239	I I	UVC UVC- (UEU/ UFL)	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	5	0.5 0.5	VT / WH PK	239 239	II II	UVC UVC- (UEU/ UFL)
6	—	—	—	—	—	Not Occu-pied	6	—	—	—	—	—

X204 Body Wiring Harness to Roof Console Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.8	GN	654	I	—	Cellular Telephone Microphone Low Reference	7	0.8	GN	654	II	—
8	0.8	GY	655	I	—	Cellular Telephone Microphone Signal	8	0.8	GY	655	II	—
9	0.5 0.5	GN GN / WH	24 24	I I	UEU/ UFL UVC	Backup Lamp Control Backup Lamp Control	9	0.5 0.5	GN GN / WH	24 24	II II	UEU/ UFL UVC
10	0.5	BK	1850	I	—	Ground	10	0.5	BK	1850	II	—
11	0.5	GY / WH	3153	I	—	Lane Departure Warning Disable Switch Signal	11	0.5	GY / WH	3153	II	—
12	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	12	0.5	GN	5060	II	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.5	WH	3152	I	—	Lane Departure Warning Indicator Control	14	0.5	WH	3152	II	—
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
16	0.5	RD / GN	3140	I	—	Battery Positive Voltage	16	0.5	RD / GN	3140	II	—

X205 Roof Console Wiring Harness to Body Wiring Harness



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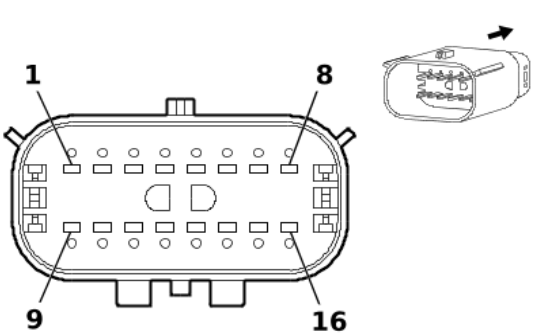


2548390

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 33472-1606
Service Connector: 13584788
Description: 16-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33482-8601
Service Connector: 19369662
Description: 16-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368973	J-35616-2A (GY)	J-38125-217
II	86800300	J-35616-3 (GY)	J-38125-217

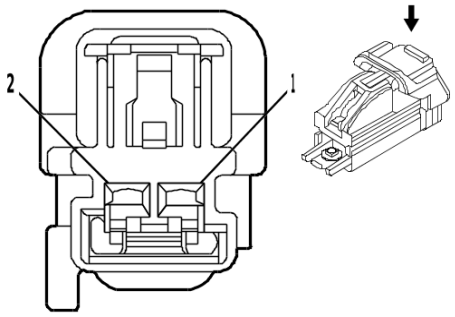
X205 Roof Console Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BN	441	I	—	Run Ignition 3 Voltage	1	0.35	BN	441	II	—
2	0.5	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	2	0.35	OG	1925	II	—
3	0.5	PK / BK	5265	I	—	Auxiliary HVAC Rear Control Signal	3	0.5	PK / BK	5265	II	—
4	0.35	GY	2599	I	—	Rear Mode Door Actuator Signal	4	0.35	GY	2599	II	—
5	0.5	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	5	0.35	WH	1924	II	—
6	0.35	BN	341	I	—	Run Ignition 3 Voltage	6	0.35	BN	341	II	—
7	1 0.8	BK BK	1850 1850	I I	((C69/ DH6) - YF1) / (- YF1) (- DH6- C69) / (YF1)	Ground Ground	7	1	BK	1850	II	—

X205 Roof Console Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	BU / WH	149	I	—	Courtesy Lamp Control	8	0.5	BU / WH	149	II	—
9	0.5	BK / WH	351	I	—	Signal Ground	9	0.35	BK / WH	351	II	—
10	0.5	BN	5263	I	—	Auxiliary HVAC Rear Temperature Signal	10	0.5	BN	5263	II	—
11	0.35	GN	6134	I	—	Body Control Module LIN Bus 3	11	0.35	GN	6134	II	—
12	0.35	OG	2775	I	—	Rear Air Temperature Door Actuator Control	12	0.35	OG	2775	II	—
13	0.5	PU / WH	5264	I	—	Auxiliary HVAC Rear Mode Signal	13	0.5	PU / WH	5264	II	—
14	0.5	BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	14	0.35	BU	1926	II	—
15	0.35	BN / WH	230	I	—	Instrument Panel Lamp Dimming Control	15	0.35	BN / WH	230	II	—
16	0.8	OG	1732	I	—	Control Module 12V Reference 3	16	0.8	OG	1732	II	—

X206 Instrument Panel Wiring Harness to Instrument Panel Wiring Harness



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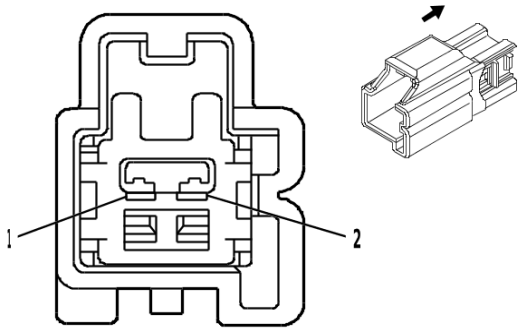


1853532

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 7282-6443-40
Service Connector: 19367526
Description: 2-Way M 1.5 Series(L-GY)

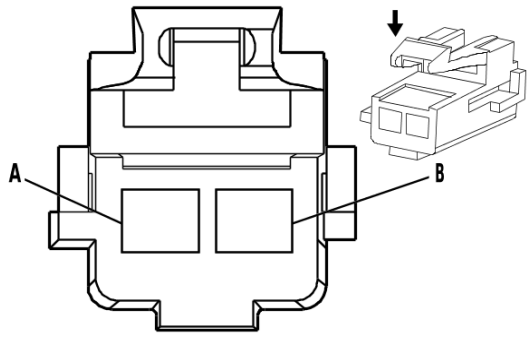
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X206 Instrument Panel Wiring Harness to Instrument Panel Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BU	20	I	—	Stop Lamp Control	1	0.5	BU	20	II	—
2	0.5	BK	350	I	—	Ground	2	0.5	BK	350	II	—

X220 Instrument Panel Wiring Harness to Park Brake Switch Jumper Wiring Harness



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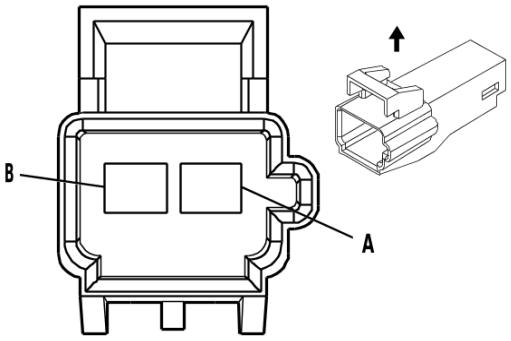


788072

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12129082
Service Connector: 15305896
Description: 2-Way F 280 Metri-Pack Flexlock Series(GY)

Connector Part Information

Harness Type: Park Brake Switch Jumper Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M (GY)

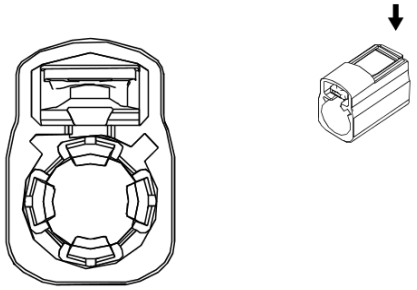
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	No Tool Required	No Tool Required

X220 Instrument Panel Wiring Harness to Park Brake Switch Jumper Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	BU	1134	I	—	Park Brake Switch Signal	A	0.35	BU	1134	II	—
B	—	—	—	—	—	Not Occupied	B	—	—	—	—	—

X221 Instrument Panel Wiring Harness to Antenna Wiring Harness



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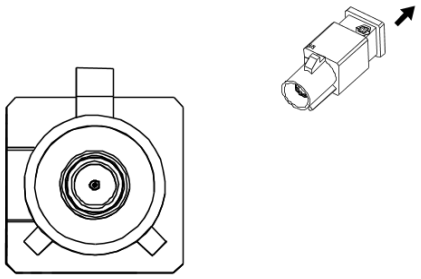


3275596

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 13616870

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type(BK)

Connector Part Information

Harness Type: Antenna Wiring Harness COAX

OEM Connector: Not Available

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way M (BK)

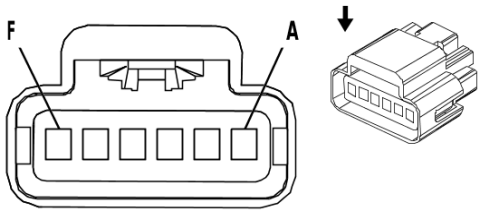
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X221 Instrument Panel Wiring Harness to Antenna Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	Coax Cable	—	I	—	(AM/FM) Antenna RF Signal	—	—	Coax Cable	—	I	—

X225 Accelerator Control Wiring Harness to Instrument Panel Wiring Harness



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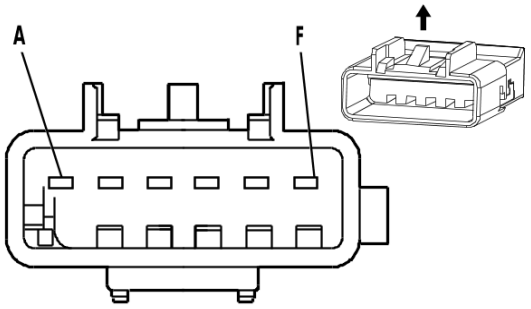


1464340

Connector Part Information

Harness Type: Accelerator Control Wiring Harness
OEM Connector: 13667186
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 GT FBT Series(BK)

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15332142
Service Connector: 19368863
Description: 6-Way M 150 GT Series(BK)

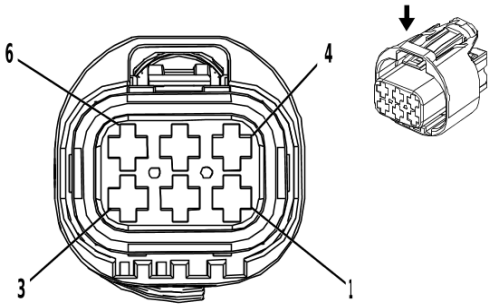
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X225 Accelerator Control Wiring Harness to Instrument Panel Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	BN / RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	A	0.35	BN / RD	1274	II	—
B	0.35	WH / RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	B	0.35	WH / RD	1164	II	—
C	0.35	YE / WH	1161	I	—	Accelerator Pedal Position Signal 1	C	0.35	YE / WH	1161	II	—
D	0.35	BK / BU	1271	I	—	Accelerator Pedal Position Low Reference 1	D	0.35	BK / BU	1271	II	—
E	0.35	BK / VT	1272	I	—	Accelerator Pedal Position Low Reference 2	E	0.35	BK / VT	1272	II	—
F	0.35	GN / WH	1162	I	—	Accelerator Pedal Position Signal 2	F	0.35	GN / WH	1162	II	—

X291 Accessory Power Fuse Block Rear Wiring Harness Extension Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7)



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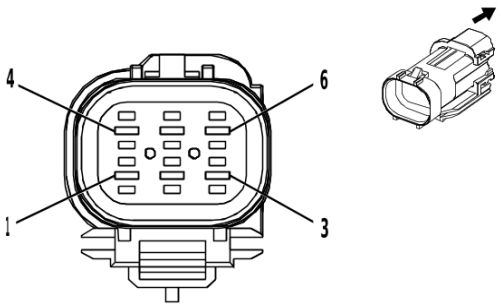


2042939

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Wiring Harness Extension Harness

OEM Connector: 1452327-1

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 2.8 Junior Power Timer Series, Sealed(BK)

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Wiring Harness Extension Harness

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M (BK)

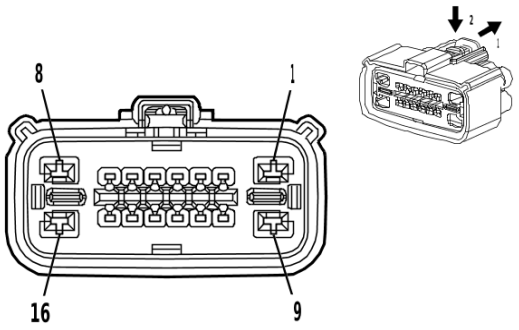
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	No Tool Required	No Tool Required

X291 Accessory Power Fuse Block Rear Wiring Harness Extension Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	GN	6840	I	—	Auxiliary Device 2 Switched Voltage	1	2.5	GN	6840	II	—
2	2.5	GN	6839	I	—	Auxiliary Device 1 Switched Voltage	2	2.5	GN	6839	II	—
3	0.5	BU	6843	I	—	Auxiliary Device Relay 2 Control	3	0.5	BU	6843	II	—
4	0.5	BK / BU	6842	I	—	Auxiliary Device Relay 1 Control	4	0.5	BK / BU	6842	II	—
5	1	RD / WH	5440	I	—	Battery Positive Voltage	5	1	RD / WH	5440	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X306 Body Wiring Harness to Seat Wiring Harness - Passenger



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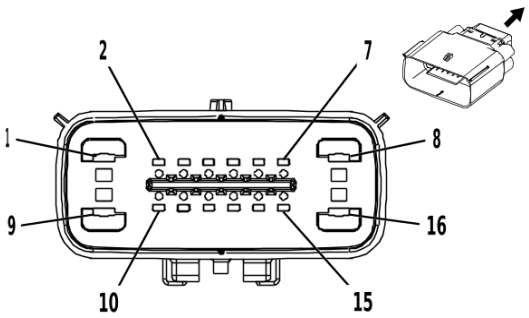


2373686

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 34985-2161
Service Connector: 19368738
Description: 16-Way F 1.5, 2.8 MX Series, Sealed(YE)

Connector Part Information

Harness Type: Seat Wiring Harness - Passenger
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M (YE)

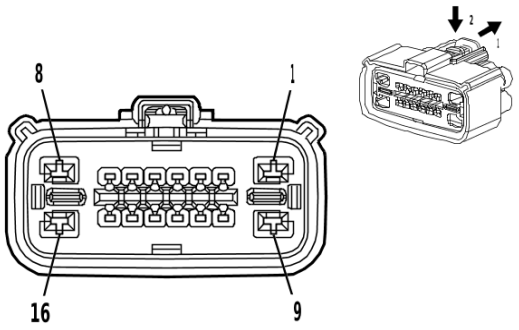
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13576377	J-35616-35 (VT)	J-38125-12A
II	85528055	J-35616-2A (GY)	J-38125-217
III	Not required	No Tool Required	No Tool Required

X306 Body Wiring Harness to Seat Wiring Harness - Passenger

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	3	BK	1850	I	—	Ground	1	3	BK	1850	III	—
2 - 4	—	—	—	—	—	Not Occupied	2 - 4	—	—	—	—	—
5	0.5	GN	2116	II	—	Passenger Seat Belt Pretensioner High Control	5	0.5	GN	2116	III	—
6	0.5	OG	2117	II	—	Passenger Seat Belt Pretensioner Low Control	6	0.5	OG	2117	III	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—
9	3	RD / WH	3540	I	—	Battery Positive Voltage	9	3	RD / WH	3540	III	—
10	0.5	GN	2136	II	—	Right Front Seat Side Air Bag Low Control	10	0.5	GN	2136	III	—
11	0.5	TN / WH	2135	II	—	Right Front Seat Side Air Bag High Control	11	0.5	TN / WH	2135	III	—
12 - 16	—	—	—	—	—	Not Occupied	12 - 16	—	—	—	—	—

X307 Body Wiring Harness to Seat Wiring Harness - Driver



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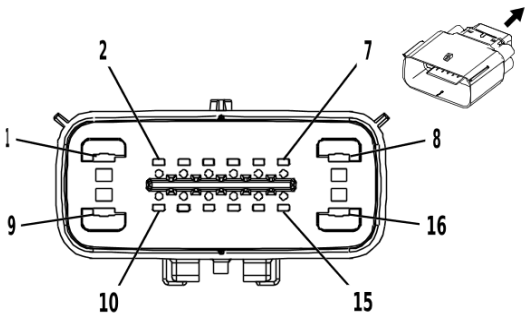


2373686

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 34985-2161
Service Connector: 19368738
Description: 16-Way F 1.5, 2.8 MX Series, Sealed(YE)

Connector Part Information

Harness Type: Seat Wiring Harness - Driver
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13576377	J-35616-35 (VT)	J-38125-12A
II	85528055	J-35616-2A (GY)	J-38125-217
III	Not required	No Tool Required	No Tool Required

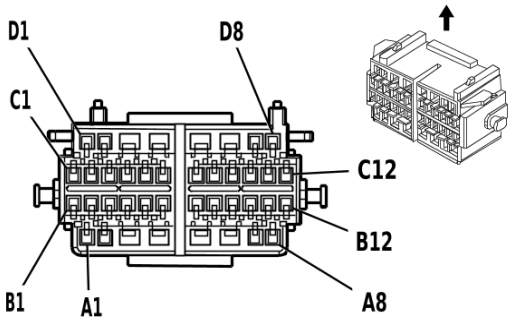
X307 Body Wiring Harness to Seat Wiring Harness - Driver

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	3	RD / WH	3540	I	—	Battery Positive Voltage	1	3	RD / WH	3540	III	—
2	0.5	PK	5057	II	—	Seat Position Switch Low Reference	2	0.5	PK	5057	III	—
3	0.5	TN / WH	238	II	—	Driver Seat Belt Switch Signal	3	0.5	TN / WH	238	III	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	TN / WH	2118	II	—	Driver Seat Belt Pretensioner High Control	5	0.5	TN / WH	2118	III	—
6	0.5	OG / BK	2119	II	—	Driver Seat Belt Pretensioner Low Control	6	0.5	OG / BK	2119	III	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—
9	3	BK	450	I	—	Ground	9	3	BK	450	III	—
10	0.5	YE / BK	2138	II	—	Left Front Seat Side Air Bag Low Control	10	0.5	YE / BK	2138	III	—

X307 Body Wiring Harness to Seat Wiring Harness - Driver (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.5	BN	2137	II	—	Left Front Seat Side Air Bag High Control	11	0.5	BN	2137	III	—
12 - 16	—	—	—	—	—	Not Occu-pied	12 - 16	—	—	—	—	—

X318 Instrument Panel Wiring Harness to Body Wiring Harness



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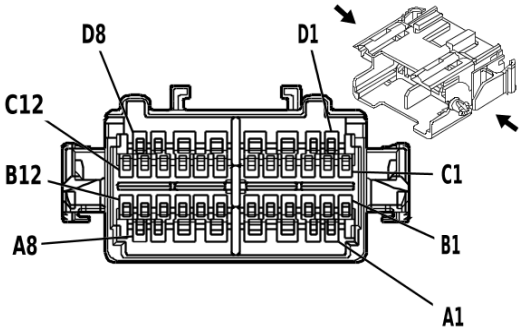


851471

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15448130
Service Connector: 89046970
Description: 40-Way F 150, 280 GT Series(L-GY)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15416977
Service Connector: 19331377
Description: 40-Way M 150, 280 GT Series(L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575503	J-35616-4A (PU)	J-38125-215A
II	13575735	J-35616-14 (GN)	J-38125-215A
III	13575753	J-35616-4A (PU)	J-38125-215A
IV	19300627	J-35616-14 (GN)	J-38125-215A
V	13575500	J-35616-3 (GY)	J-38125-215A
VI	13575502	J-35616-3 (GY)	J-38125-215A
VII	13575505	J-35616-5 (PU)	J-38125-215A
VIII	13575507	J-35616-5 (PU)	J-38125-215A

X318 Instrument Panel Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.8	OG	1853	II	—	Right Front Midrange Speaker [+] Control	A1	0.8	OG	1853	VI	—
A2	0.8	GN	1953	II	—	Right Front Midrange Speaker [-] Control	A2	0.8	GN	1953	VI	—
A3	0.5	BK / WH	1751	I	—	Signal Ground	A3	0.5	BK / WH	1751	VII	—
A4	0.5	TN / BK	371	I	—	Passenger Supplemental Inflatable Restraint Disable Switch Signal	A4	0.5	TN / BK	371	VII	—
A5	0.5	BU / YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	A5	0.5	BU / YE	6105	VII	—

X318 Instrument Panel Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A6	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	A6	0.5	WH	6106	VII	—
A7	1	RD / WH	440	II	—	Battery Positive Voltage	A7	1	RD / WH	440	VI	—
A8	0.35	YE / BK	1181	IV	—	Right Rear Door Open Switch Signal	A8	0.35	YE / BK	1181	V	—
B1	0.8	BU	1320	II	—	Center High Mounted Stop Lamp Control 2	B1	0.8	BU	1320	VI	—
B2	—	—	—	—	—	Not Occupied	B2	—	—	—	—	—
B3	0.8	TN	1855	II	—	Right Rear Midrange Speaker [+] Control	B3	1	TN	1855	VI	—
B4	0.8	OG	1955	II	—	Right Rear Midrange Speaker [-] Control	B4	1	OG	1955	VI	—
B5	—	—	—	—	—	Not Occupied	B5	—	—	—	—	—
B6	0.5	GN	5060	IV	—	Low Speed GMLAN Serial Data	B6	0.5	GN	5060	V	—
B7	0.5	BU / WH	6619	IV	—	Front Middle Impact Discriminating Sensor Low Reference	B7	0.5	BU / WH	6619	V	—
B8	0.5	BN / WH	6618	IV	—	Front Middle Impact Discriminating Sensor Signal	B8	0.5	BN / WH	6618	V	—
B9	0.35	WH	3152	IV	—	Lane Departure Warning Indicator Control	B9	0.5	WH	3152	V	—
B10	0.35	GN	5060	IV	—	Low Speed GMLAN Serial Data	B10	0.35	GN	5060	V	—
B11	0.35	GN	6134	IV	—	Body Control Module LIN Bus 3	B11	0.35	GN	6134	V	—
B12	0.35	GY / WH	3153	IV	—	Lane Departure Warning Disable Switch Signal	B12	0.5	GY / WH	3153	V	—
C1	0.8	GN	654	II	—	Cellular Telephone Microphone Low Reference	C1	0.8	GN	654	VI	—
C2	0.35	PK	1139	IV	—	Run/Crank Ignition 1 Voltage	C2	0.35	PK	1139	V	—

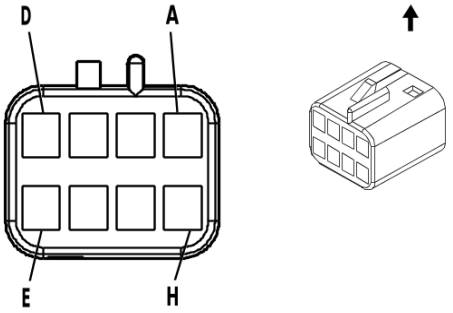
X318 Instrument Panel Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
C3	0.8	TN	1859	II	—	Left Rear Midrange Speaker [+] Control	C3	1	TN	1859	VI	—
C4	0.8	WH	1959	II	—	Left Rear Midrange Speaker [-] Control	C4	1	WH	1959	VI	—
C5	0.8	GY	655	II	—	Cellular Telephone Microphone Signal	C5	0.8	GY	655	VI	—
C6	—	—	—	—	—	Not Occupied	C6	—	—	—	—	—
C7	0.35	GN	5926	IV	—	Rear Body Opening Open Switch Signal	C7	0.35	GN	5926	V	—
C8	0.35	PK / BK	1303	IV	—	Liftgate Ajar Switch Signal 1	C8	0.35	PK / BK	1303	V	—
C9	0.35	TN / WH	746	IV	—	Right Front Door Ajar Switch Signal	C9	0.35	TN / WH	746	V	—
C1-0	0.35	GN	1177	IV	—	Right Front Door Open Switch Signal	C1-0	0.35	GN	1177	V	—
C1-1	0.5	TN	126	IV	—	Left Front Door Open Switch Signal	C1-1	0.35	TN	126	V	—
C1-2	0.35	GY / BK	745	IV	—	Left Front Door Ajar Switch Signal	C1-2	0.35	GY / BK	745	V	—
D1	0.8	BU	1857	II	—	Left Front Midrange Speaker [+] Control	D1	0.8	BU	1857	VI	—
D2	0.8	BU	1957	II	—	Left Front Midrange Speaker [-] Control	D2	0.8	BU	1957	VI	—
D3	0.5 0.8	OG OG	1732 1732	III	— —	Control Module 12V Reference 3 Control Module 12V Reference 3	D3	0.8	OG	1732	VIII	—
D4	0.5	PK	353	I	—	Passenger Supplemental Inflatable Restraint Suppression Indicator Control	D4	0.5	PK	353	VII	—
D5	0.5	PK / BK	780	I	—	Driver Door Lock Switch Lock Signal	D5	0.35	PK / BK	780	VII	—

X318 Instrument Panel Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
D6	0.5	OG / BK	781	I	—	Driver Door Lock Switch Unlock Signal	D6	0.35	OG / BK	781	VII	—
D7	0.35	BU	244	IV	—	Passenger Door Lock Switch Lock Control	D7	0.35	BU	244	V	—
D8	0.35	BU	245	IV	—	Passenger Door Lock Switch Unlock Control	D8	0.35	BU	245	V	—

X319 Auxiliary Heater Front Wiring Harness to Body Wiring Harness



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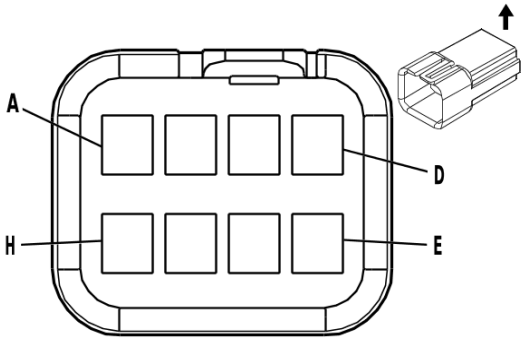


62434

Connector Part Information

Harness Type: Auxiliary Heater Front Wiring Harness
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12045688
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series(BK)

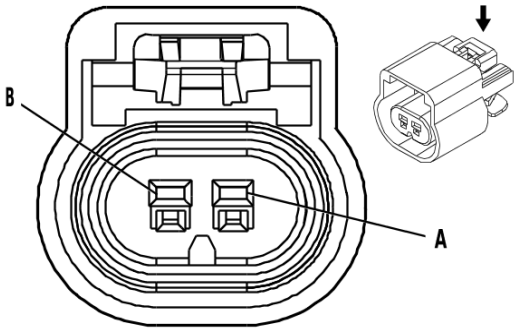
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X319 Auxiliary Heater Front Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	A	0.35	WH	1924	II	—
B	0.35	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	B	0.35	OG	1925	II	—
C	0.35	BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	C	0.35	BU	1926	II	—
D	0.35	BN / WH	230	I	—	Instrument Panel Lamp Dimming Control	D	0.35	BN / WH	230	II	—
E	0.35	BK	450	I	—	Ground	E	0.35	BK	450	II	—
F - H	—	—	—	—	—	Not Occupied	F - H	—	—	—	—	—

X323 Airbag Wiring Harness to Body Wiring Harness



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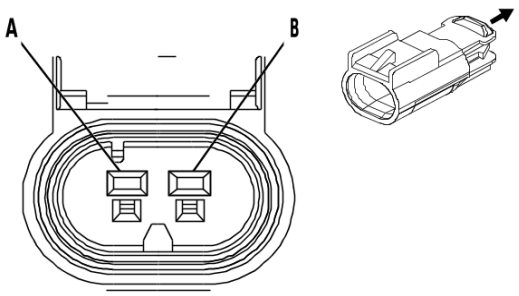


681875

Connector Part Information

Harness Type: Airbag Wiring Harness
OEM Connector: 13510085
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13510099
Service Connector: 13580103
Description: 2-Way M 150 GT Series, Sealed(BK)

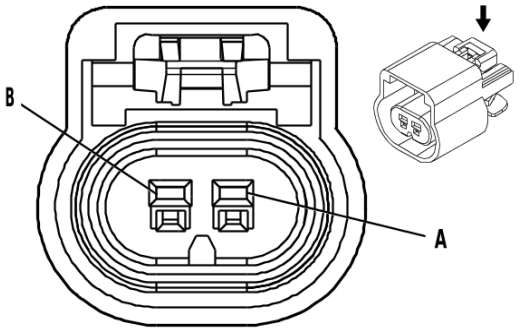
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X323 Airbag Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	GY / BK	6621	I	—	Left Middle Side Impact Sensor Low Reference	A	0.5	GY / BK	6621	II	—
B	0.5	GN / WH	6620	I	—	Left Middle Side Impact Sensor Signal	B	0.5	GN / WH	6620	II	—

X324 Airbag Wiring Harness to Body Wiring Harness



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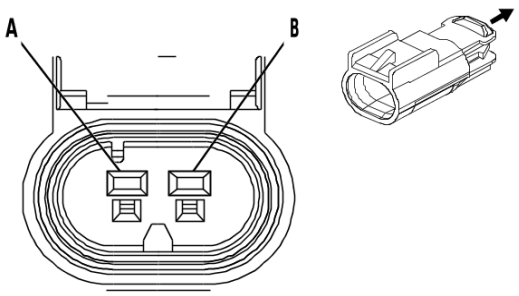


681875

Connector Part Information

Harness Type: Airbag Wiring Harness
OEM Connector: 13510085
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13510099
Service Connector: 13580103
Description: 2-Way M 150 GT Series, Sealed(BK)

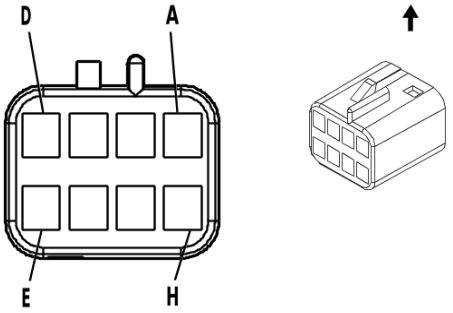
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X324 Airbag Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	GN / WH	6625	I	—	Right Middle Side Impact Sensor Low Reference	A	0.5	GN / WH	6625	II	—
B	0.5	BU / BK	6624	I	—	Right Middle Side Impact Sensor Signal	B	0.5	BU / BK	6624	II	—

X329 Instrument Panel Wiring Harness to Body Wiring Harness



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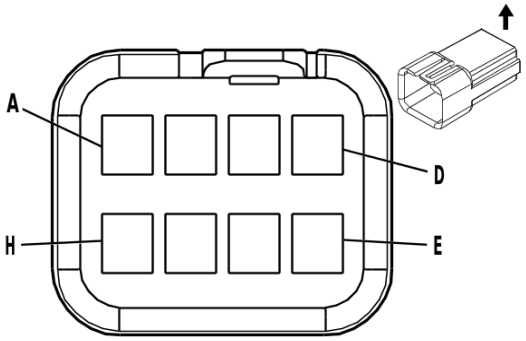


62434

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12047886
Service Connector: 13584485
Description: 8-Way F 150 Metri-Pack Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12089526
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series(BK)

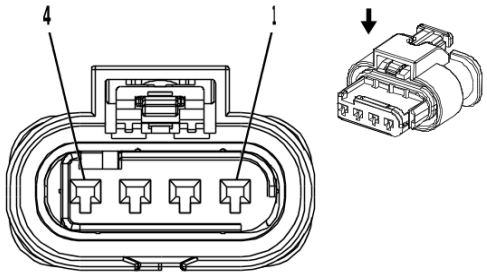
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X329 Instrument Panel Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A - C	—	—	—	—	—	Not Occupied	A - C	—	—	—	—	—
D	0.5	GN	24	I	—	Backup Lamp Control	D	0.5	GN	24	II	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage	E	0.5	PK	239	II	—
F	0.5	GN	24	I	—	Backup Lamp Control	F	0.5	GN	24	II	—
G - H	—	—	—	—	—	Not Occupied	G - H	—	—	—	—	—

X330 Instrument Panel Wiring Harness to Body Wiring Harness



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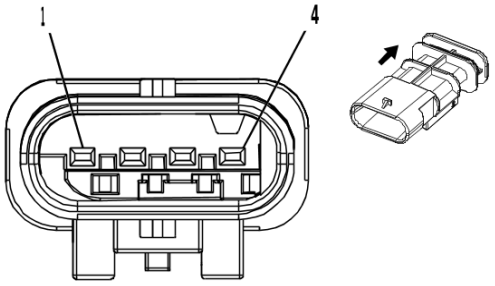


3225223

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 1-2141402-4
Service Connector: 13586137
Description: 4-Way F 1.2 Series, Sealed(YE)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-1564559-4
Service Connector: 19299698
Description: 4-Way M 1.2 Series, Sealed(YE)

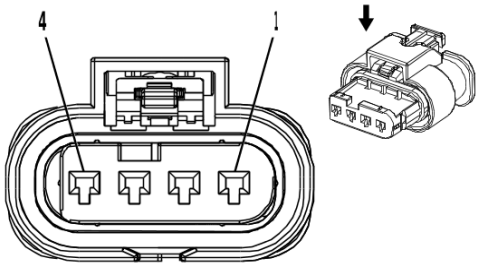
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

X330 Instrument Panel Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	TN	3021	I	—	Steering Wheel Air Bag Stage 1 High Control	1	0.5	TN	3021	II	—
2	0.5	BN	3020	I	—	Steering Wheel Air Bag Stage 1 Low Control	2	0.5	BN	3020	II	—
3 - 4	—	—	—	—	—	Not Occu-pied	3 - 4	—	—	—	—	—

X331 Instrument Panel Wiring Harness to Body Wiring Harness



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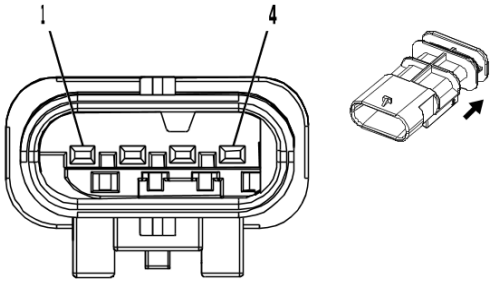


2684563

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 2-2141402-4
Service Connector: 85571685
Description: 4-Way F 1.2 Series, Sealed(YE)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 2-1564559-4
Service Connector: 13586576
Description: 4-Way M 1.2 Series, Sealed(YE)

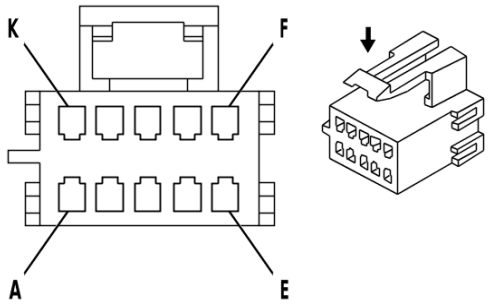
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

X331 Instrument Panel Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE	3025	I	—	Passenger Instrument Panel Air Bag Stage 1 High Control	1	0.5	YE	3025	II	—
2	0.5	OG	3024	I	—	Passenger Instrument Panel Air Bag Stage 1 Low Control	2	0.5	OG	3024	II	—
3 - 4	—	—	—	—	—	Not Occu-pied	3 - 4	—	—	—	—	—

X400 Rear Door Door Wiring Harness to Body Wiring Harness



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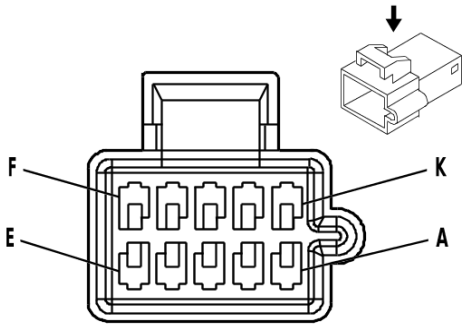


808703

Connector Part Information

Harness Type: Rear Door Door Wiring Harness
OEM Connector: 15324054
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 150 Metri-Pack Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15324758
Service Connector: 19179279
Description: 10-Way M 150 Metri-Pack Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	13505668	J-35616-3 (GY)	J-38125-12A
III	13575463	J-35616-3 (GY)	J-38125-12A

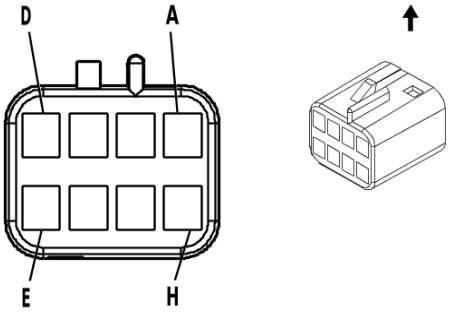
X400 Rear Door Door Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	TN	1855	I	—	Right Rear Midrange Speaker [+] Control	A	1	TN	1855	II	—
B	1	OG	1955	I	—	Right Rear Midrange Speaker [-] Control	B	1	OG	1955	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.35	BK / WH	1051	I	—	Signal Ground	D	1	BK / WH	1051	II	—
E	0.35	BU	245	I	—	Passenger Door Lock Switch Unlock Control	E	0.35	BU	245	III	—
F	1	GY	295	I	—	Door Lock Actuator Lock Control	F	1	GY	295	II	—
G	1	TN / BK	1095	I	—	Right Rear Door Lock Actuator Unlock Control	G	1	TN / BK	1095	II	—
H	0.35	GN	5926	I	—	Rear Body Opening Open Switch Signal	H	0.35	GN	5926	III	—

X400 Rear Door Door Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
J	0.35	PK / BK	1303	I	—	Liftgate Ajar Switch Signal 1	J	0.35	PK / BK	1303	III	—
K	0.35	BU	244	I	—	Passenger Door Lock Switch Lock Control	K	0.35	BU	244	III	—

X403 Rear Door Door Wiring Harness to Body Wiring Harness - Cargo/Passenger



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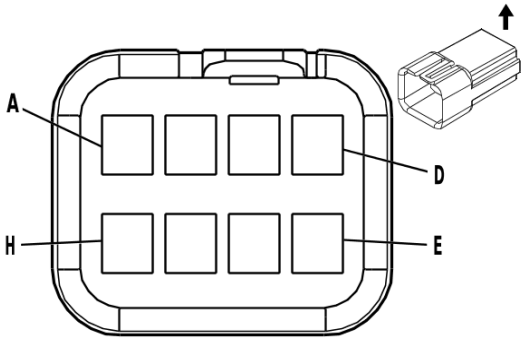


62434

Connector Part Information

Harness Type: Rear Door Door Wiring Harness
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12089526
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series(BK)

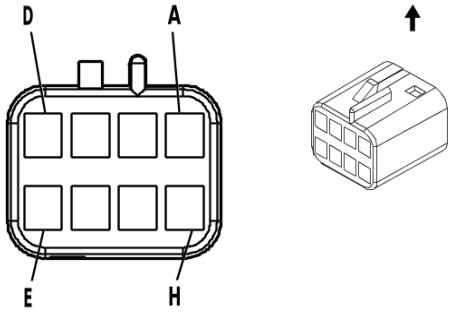
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X403 Rear Door Door Wiring Harness to Body Wiring Harness - Cargo/Passenger

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	YE	7641	I	—	Frontview Camera 2 Signal [+]	A	0.5	BU	7641	II	—
B	0.5	BU	7642	I	—	Frontview Camera 2 Signal [-]	B	0.5	BU	7642	II	—
C	—	—	—	—	—	Not Occu-pied	C	—	—	—	—	—
D	0.5	BK	351	I	—	Signal Ground	D	0.35	BK / WH	351	II	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage	E	0.5	PK	239	II	—
F	0.5	GN	24	I	—	Backup Lamp Control	F	0.5	GN	24	II	—
G	—	—	—	—	—	Not Occu-pied	G	—	—	—	—	—
H	0.5	Bare	6799	I	—	Camera Shield Ground	H	0.5	Bare	6799	II	—

X403 Rear Door Door Wiring Harness to Body Wiring Harness - Cutaway



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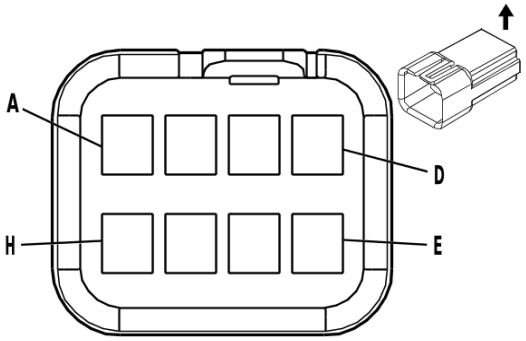


62434

Connector Part Information

Harness Type: Rearview Camera Wiring Harness
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12045688
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series(BK)

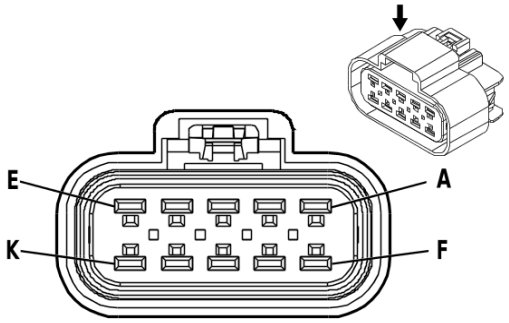
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

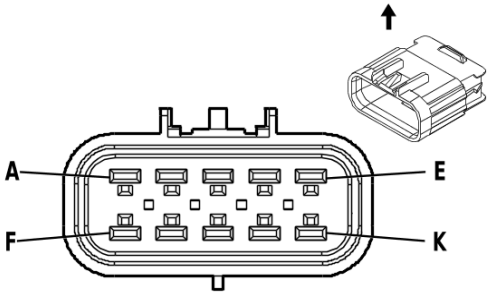
X403 Rear Door Door Wiring Harness to Body Wiring Harness - Cutaway

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	WH	7641	I	—	Frontview Camera 2 Signal [+]	A	0.35	BU	7641	II	—
B	0.5	BU	7642	I	—	Frontview Camera 2 Signal [-]	B	0.35	BU	7642	II	—
C - D	—	—	—	—	—	Not Occu-pied	C - D	—	—	—	—	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage	E	0.5	PK	239	II	—
F	0.5	GN	24	I	—	Backup Lamp Control	F	0.5	GN	24	II	—
G	0.5	BK / WH	351	I	—	Signal Ground	G	0.35	BK / WH	351	II	—
H	0.5	Bare	6799	I	—	Camera Shield Ground	H	0.35	Bare	6799	II	—

X405 Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness - Cutaway



655815



655819

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 15326660
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 280 GT Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 15326661
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way M 280 GT Series, Sealed(BK)

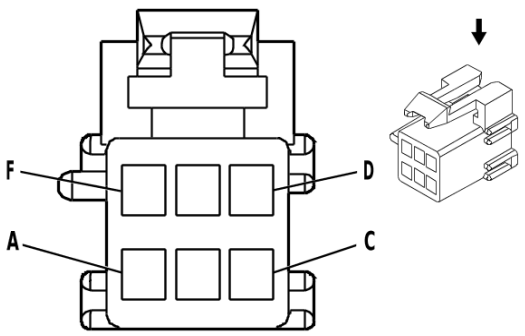
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X405 Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness - Cutaway

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A - B	—	—	—	—	—	Not Occupied	A - B	—	—	—	—	—
C	0.8	BU	1320	I	—	Center High Mounted Stop Lamp Control 2	C	0.8	BU	1320	II	—
D	—	—	—	—	—	Left Rear Turn Signal Lamp Control	D	1	YE	618	II	—
E						Right Rear Turn Signal Lamp Control	E	1	GN	619	II	—
F	—	—	—	—	—	Trailer Park Lamp Control	F	1	BN	2109	II	—
G	0.8	BK	150	I	—	Ground	G	1	BK	150	II	—
H	—	—	—	—	—	Trailer Back-up Lamp Control	H	1	GN	1624	II	—
J	—	—	—	—	—	Not Occupied	J	—	—	—	—	—
K	—	—	—	—	—	Courtesy Lamp Control	K	0.8	BU / WH	149	II	—

X407 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness



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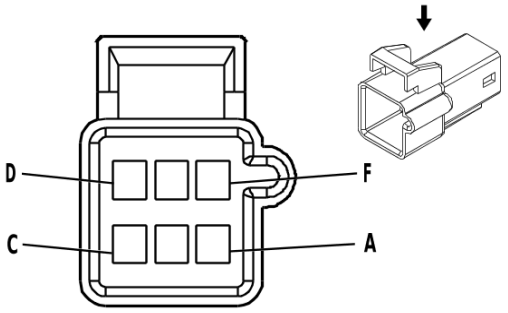


40425

Connector Part Information

Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
OEM Connector: 12064762
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 Metri-Pack Series(GY)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12064763
Service Connector: 12101876
Description: 6-Way M 150 Metri-Pack Series(GY)

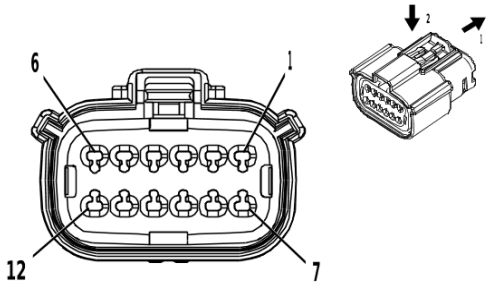
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X407 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	OG	2775	I	—	Rear Air Temperature Door Actuator Control	A	0.35	OG	2775	II	—
B	0.35	BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	B	0.35	BU	1926	II	—
C	0.35	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	C	0.35	WH	1924	II	—
D	0.35	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	D	0.35	OG	1925	II	—
E	0.35	BN	341	I	—	Run Ignition 3 Voltage	E	0.35	BN	341	II	—
F	0.35	GY	2599	I	—	Rear Mode Door Actuator Signal	F	0.35	GY	2599	II	—

X408 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness



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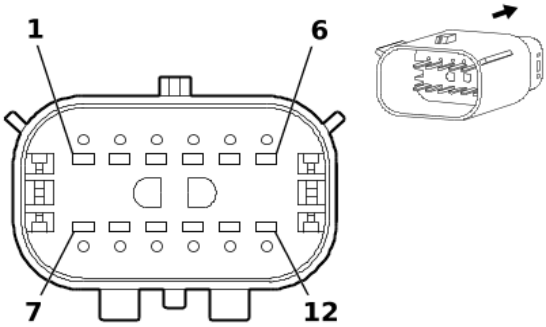


1825167

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 33472-1206
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 33482-6201
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

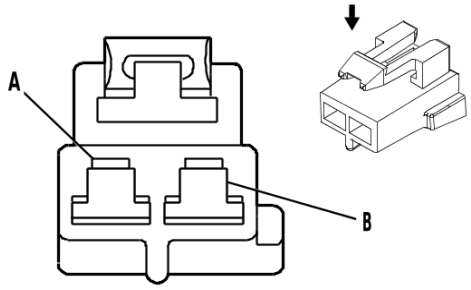
X408 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE / WH	2377	I	—	Right Rear Middle Parking Assist Sensor Signal	1	0.5	YE / WH	2377	II	—
2	0.5	YE / VT	2378	I	—	Right Rear Outer Parking Assist Sensor Signal	2	0.5	YE / VT	2378	II	—
3	0.5 0.5	GY / GY BK / GY	2379 2379	I I	UFT - UFT	Object Sensor Low Reference Object Sensor Low Reference	3	0.5 0.5	BK / GY BK / GY	2379 2379	II II	UFT - UFT
4	0.5 0.5	BU BN / WH	2374 2374	I I	UFT - UFT	Object Sensor Voltage Reference Object Sensor Voltage Reference	4	0.5 0.5	BN / WH BN / WH	2374 2374	II II	UFT - UFT
5	0.5	YE	2375	I	—	Left Rear Outer Parking Assist Sensor Signal	5	0.5	YE	2375	II	—

X408 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	YE / BU	2376	I	—	Left Rear Middle Parking Assist Sensor Signal	6	0.5	YE / BU	2376	II	—
7	0.5	BK	2150	I	—	Ground	7	1	BK	2150	II	—
8	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	8	0.5	GN	5060	II	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	GY / YE	5853	I	—	Driver Side Side Object Detection LED Signal 1	10	0.5	GY / YE	5853	II	—
11	0.5	GY	5861	I	—	Passenger Side Object Detection LED Signal 1	11	0.5	GY	5861	II	—
12	0.5	RD / GN	3140	I	—	Battery Positive Voltage	12	0.5	RD / GN	3140	II	—

X409 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness



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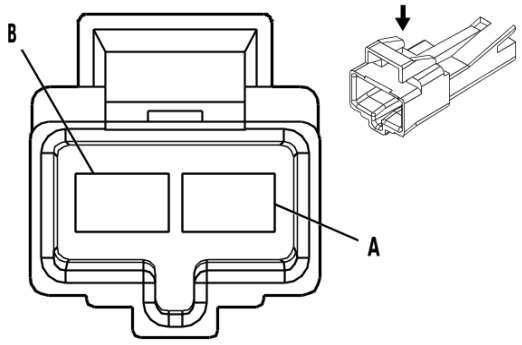


38284

Connector Part Information

Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
OEM Connector: 12064749
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12064750
Service Connector: 19368865
Description: 2-Way M 480 Metri-Pack Series(BK)

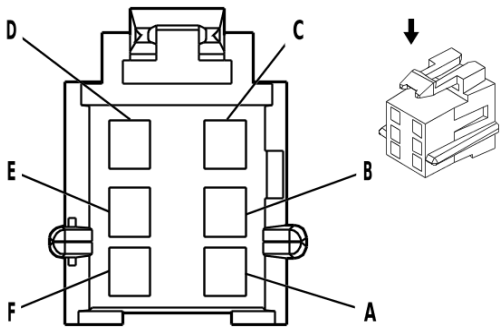
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-40 (BU)	No Tool Required
II	Not required	J-35616-40 (BU)	No Tool Required

X409 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	RD / WH	1740	I	—	Battery Positive Voltage	A	5	RD / WH	1740	II	—
B	5	BK	850	I	—	Ground Ground	B	5 5	BK BK	450 850	II	— —

X410 Tail Lamp Wiring Harness to Body Wiring Harness



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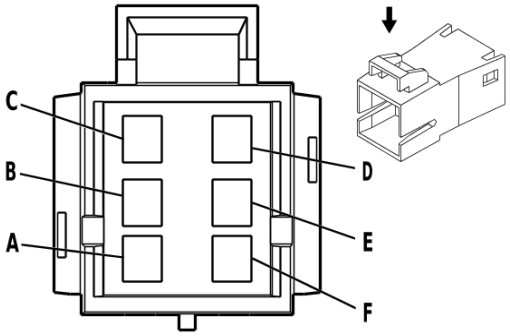


39689

Connector Part Information

Harness Type: Tail Lamp Wiring Harness
OEM Connector: 12064752
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12064754
Service Connector: 19368739
Description: 6-Way M 280 Metri-Pack Series(BK)

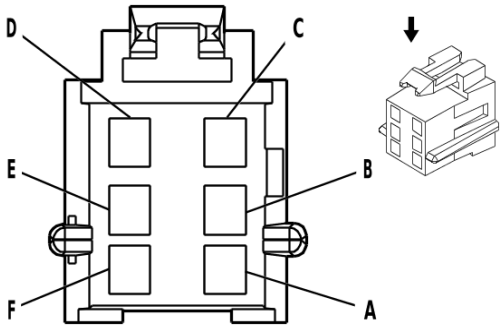
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X410 Tail Lamp Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BN	2509	I	—	Left Rear Park Lamp Control	A	0.5	BN	2509	II	—
B	1	YE	618	I	—	Left Rear Turn Signal Lamp Control	B	1	YE	618	II	—
C	—	—	—	—	—	Not Occu-pied	C	—	—	—	—	—
D	0.8	BK	850	I	—	Ground	D	0.8	BK	850	II	—
E	—	—	—	—	—	Not Occu-pied	E	—	—	—	—	—
F	0.8	GN	24	I	—	Backup Lamp Control	F	0.8	GN	24	II	—

X411 Rear Door Door Wiring Harness - Left to Body Wiring Harness



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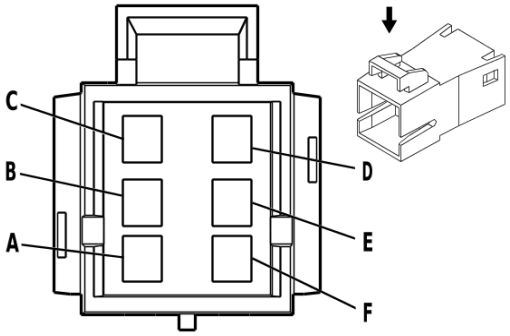


39689

Connector Part Information

Harness Type: Rear Door Door Wiring Harness - Left
OEM Connector: 12064752
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12064754
Service Connector: 19368739
Description: 6-Way M 280 Metri-Pack Series(BK)

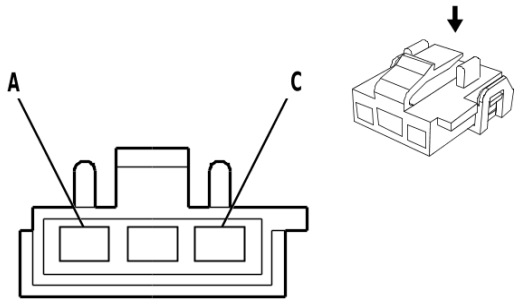
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X411 Rear Door Door Wiring Harness - Left to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	TN	1859	I	—	Left Rear Midrange Speaker [+] Control	A	1	TN	1859	II	—
B	1	WH	1959	I	—	Left Rear Midrange Speaker [-] Control	B	1	WH	1959	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	5	PU	293	I	—	Rear Defogger Grid Control	D	5	PU	293	II	—
E	3	BK	850	I	—	Ground	E	3	BK	850	II	—
F	—	—	—	—	—	Not Occupied	F	—	—	—	—	—

X412 Rear Door Door Wiring Harness to Body Wiring Harness



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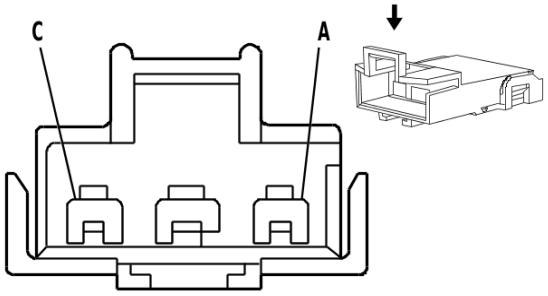


1884161

Connector Part Information

Harness Type: Rear Door Door Wiring Harness
OEM Connector: 12020014
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F Weather Pack Series, Sealed(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12045681
Service Connector: 19368884
Description: 3-Way M 280, 480 Metri-Pack Series(BK)

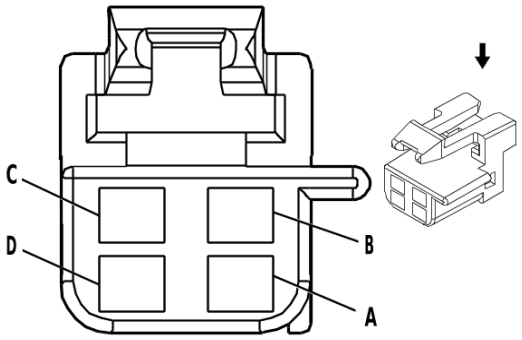
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-40 (BU)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required
III	Not required	J-35616-40 (BU)	No Tool Required
IV	Not required	J-35616-5 (PU)	No Tool Required

X412 Rear Door Door Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BN	2509	II	—	Left Rear Park Lamp Control	A	0.5	BN	2509	IV	—
B	5	PU	293	I	—	Rear Defogger Grid Control	B	5	PU	293	III	—
C	0.5 3	BK BK	1050 1050	II	— —	Ground Ground	C	3	BK	1050	IV	—

X415 Radio Rear Speaker Wiring Harness to Body Wiring Harness



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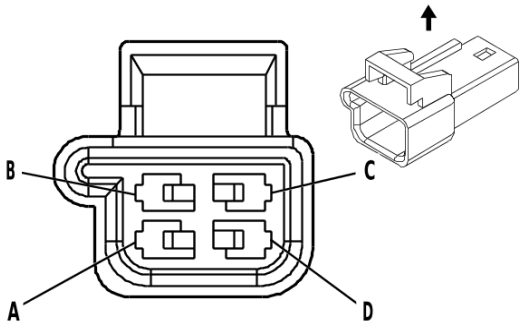


40399

Connector Part Information

Harness Type: Radio Rear Speaker Wiring Harness
OEM Connector: 12064760
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 Metri-Pack Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12065658
Service Connector: 19368719
Description: 4-Way M 150 Metri-Pack Series(BK)

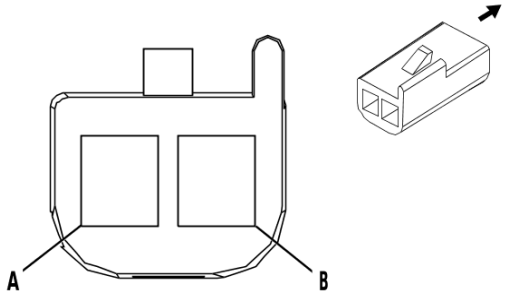
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X415 Radio Rear Speaker Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	WH	1959	I	—	Left Rear Midrange Speaker [-] Control	A	1	WH	1959	II	—
B	1	TN	1859	I	—	Left Rear Midrange Speaker [+] Control	B	1	TN	1859	II	—
C	1	OG	1955	I	—	Right Rear Midrange Speaker [-] Control	C	1	OG	1955	II	—
D	1	TN	1855	I	—	Right Rear Midrange Speaker [+] Control	D	1	TN	1855	II	—

X419 Center High Mounted Stop Lamp Jumper Wiring Harness to Body Wiring Harness



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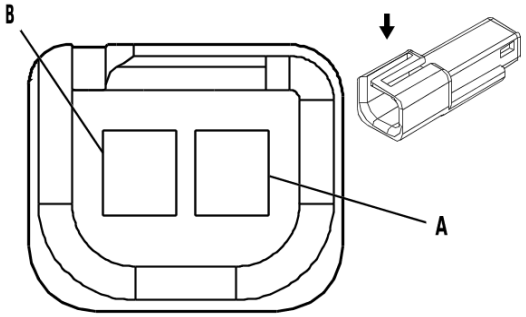


1664595

Connector Part Information

Harness Type: Center High Mounted
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12048457
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series(BK)

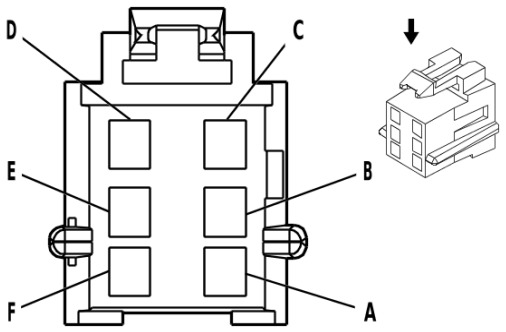
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X419 Center High Mounted Stop Lamp Jumper Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.8	BU	1320	I	—	Center High Mounted Stop Lamp Control 2	A	0.8	BU	1320	II	—
B	0.8	BK	850	I	—	Ground	B	0.8	BK	850	II	—

X420 Tail Lamp Wiring Harness to Body Wiring Harness



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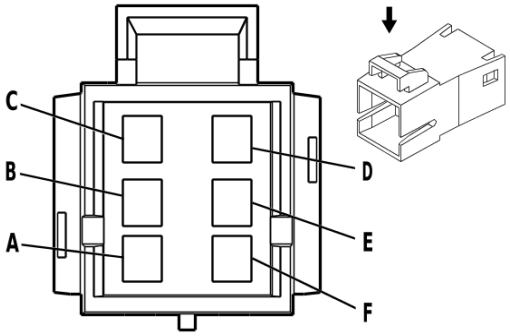


39689

Connector Part Information

Harness Type: Tail Lamp Wiring Harness
OEM Connector: 12064752
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 12064754
Service Connector: 19368739
Description: 6-Way M 280 Metri-Pack Series(BK)

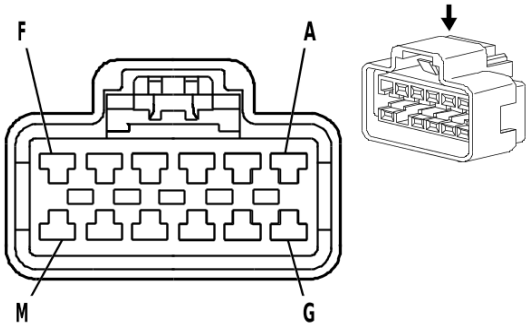
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X420 Tail Lamp Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BN	2609	I	—	Right Rear Park Lamp Control	A	0.5	BN	2609	II	—
B	1	GN	619	I	—	Right Rear Turn Signal Lamp Control	B	1	GN	619	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.8	BK	1050	I	—	Ground	D	0.8	BK	1050	II	—
E	—	—	—	—	—	Not Occupied	E	—	—	—	—	—
F	0.8	GN	24	I	—	Backup Lamp Control	F	0.8	GN	24	II	—

X421 Roof Console Wiring Harness to Body Wiring Harness



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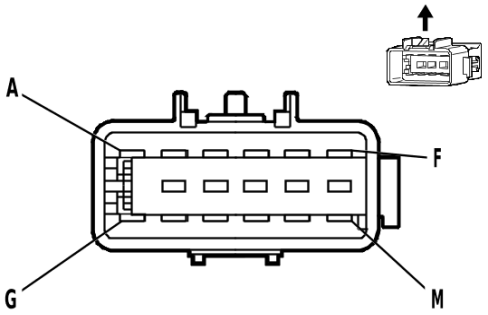


847281

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15326942
Service Connector: 15326942
Description: 12-Way M 280 GT Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	13575505	J-35616-5 (PU)	J-38125-215A
III	13575507	J-35616-5 (PU)	J-38125-215A

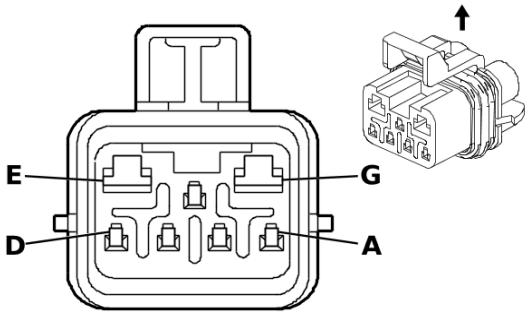
X421 Roof Console Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.8	BU / WH	149	I	—	Courtesy Lamp Control	A	0.8	BU / WH	149	III	—
B	0.8	BU / WH	149	I	—	Courtesy Lamp Control	B	0.8	BU / WH	149	III	—
C	0.35	BN / WH	230	I	—	Instrument Panel Lamp Dimming Control	C	0.35	BN / WH	230	II	—
D	0.5	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	D	0.5	WH	1924	II	—
E	0.5	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	E	0.5	OG	1925	II	—
F	0.5	BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	F	0.5	BU	1926	II	—
G	0.35	BN	341	I	—	Run Ignition 3 Voltage	G	0.35	BN	341	II	—
H	0.8	BK	1050	I	—	Ground	H	0.8	BK	1050	III	—

X421 Roof Console Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
J	0.8	OG	1732	I	—	Control Module 12V Reference 3	J	0.8	OG	1732	III	—
K	0.5	BN	5263	I	—	Auxiliary HVAC Rear Temperature Signal	K	0.5	BN	5263	II	—
L	0.5	PU / WH	5264	I	—	Auxiliary HVAC Rear Mode Signal	L	0.5	PU / WH	5264	II	—
M	0.5	PK / BK	5265	I	—	Auxiliary HVAC Rear Control Signal	M	0.5	PK / BK	5265	II	—

X450 Trailer Jumper Wiring Harness to Chassis Wiring Harness (NE7)



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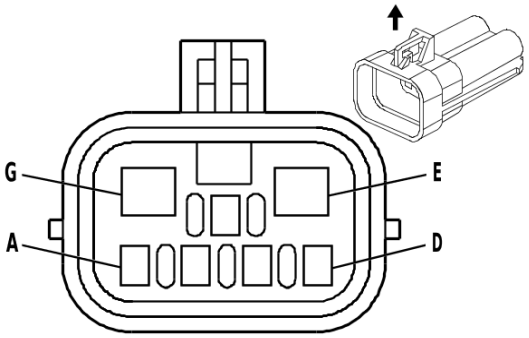


1372292

Connector Part Information

Harness Type: Trailer Jumper Wiring Harness
OEM Connector: 12059472
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 150 Metri-Pack, 480 Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way M (BK)

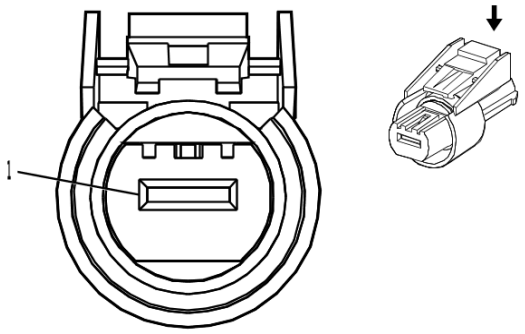
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	No Tool Required	No Tool Required

X450 Trailer Jumper Wiring Harness to Chassis Wiring Harness (NE7)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	—	GN	1624	I	—	Trailer Back-up Lamp Control	A	1	GN	1624	II	—
B	—	BN	2109	I	—	Trailer Park Lamp Control	B	1	BN	2109	II	—
C	—	YE	1618	I	—	Left Rear Trailer Stop/ Turn Lamp Control	C	1	YE	1618	II	—
D	—	—	—	—	—	Not Occu-pied	D	—	—	—	—	—
E	—	BU	47	I	—	Trailer Auxili-ary Control	E	3	BU	47	II	—
F	—	GN	1619	I	—	Right Rear Trailer Stop/ Turn Lamp Control	F	1	GN	1619	II	—
G	—	RD / BK	742	I	—	Battery Posi-tive Voltage	G	3	RD / BK	742	II	—

X460 Chassis Wiring Harness to Chassis Wiring Harness



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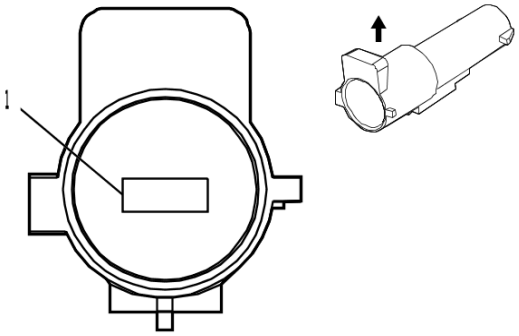


814660

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 15326120
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 800 Metri-Pack Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M (BK)

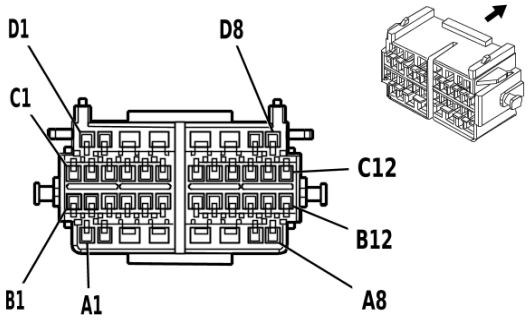
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-44 (YE)	No Tool Required
II	Not required	No Tool Required	No Tool Required

X460 Chassis Wiring Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	8	WH	22	I	—	Trailer Ground	1	8	WH	22	II	—

X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness



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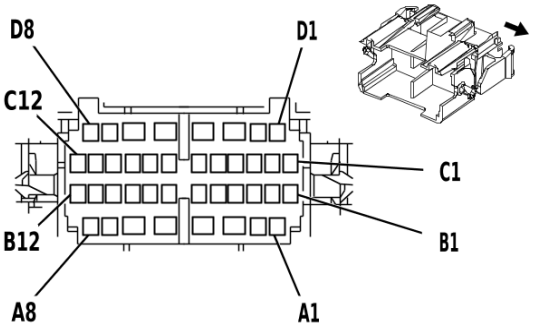


1715230

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 15448129
Service Connector: Service by Harness - See Part Catalog
Description: 40-Way F 150, 280 GT Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15416976
Service Connector: 89047197
Description: 40-Way M 150, 280 GT Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required
III	Not required	J-35616-4A (PU)	No Tool Required
IV	13575500	J-35616-3 (GY)	J-38125-215A
V	13575502	J-35616-3 (GY)	J-38125-215A
VI	13575505	J-35616-5 (PU)	J-38125-215A
VII	13575508	J-35616-5 (PU)	J-38125-215A

X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.35	TN	126	II	—	Left Front Door Open Switch Signal	A1	0.35	TN	126	IV	—
A2 - A4	—	—	—	—	—	Not Occupied	A2 - A4	—	—	—	—	—
A5	0.35 3	BK BK	450 450	III III	(AU3) - (DE5) - (A31) (AU3) + (DE5/ A31)	Ground Ground	A5	3	BK	450	VII	—
A6	0.35	BN / WH	230	III	—	Instrument Panel Lamp Dimming Control	A6	0.35	BN / WH	230	VI	—
A7	0.8	OG	2267	I	—	Outside Rearview Mirror Heater Control	A7	0.8	OG	2267	V	—

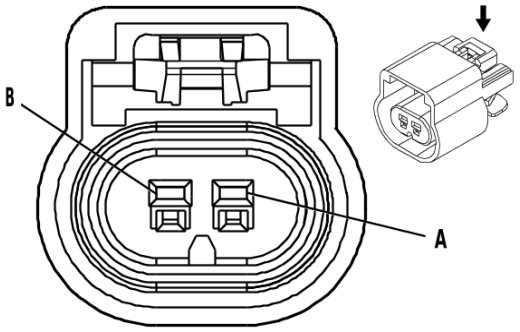
X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A8	0.35	PU / WH	889	II	—	Right Outside Rearview Mirror Motor Down Control	A8	0.5	PU / WH	889	IV	—
B1	0.35	OG / BK	781	II	—	Driver Door Lock Switch Unlock Signal	B1	0.35	OG / BK	781	IV	—
B2	0.35	PK / BK	780	II	—	Driver Door Lock Switch Lock Signal	B2	0.35	PK / BK	780	IV	—
B3	0.35	GY / BK	745	II	—	Left Front Door Ajar Switch Signal	B3	0.35	GY / BK	745	IV	—
B4	0.35	BK	450	II	—	Ground	B4	0.35	BK	450	IV	—
B5 - B6	—	—	—	—	—	Not Occupied	B5 - B6	—	—	—	—	—
B7	0.8	TN	694	I	—	Driver Door Lock Actuator Unlock Control	B7	0.8	TN	694	V	—
B8	0.8	GY	295	I	—	Door Lock Actuator Lock Control	B8	0.8	GY	295	V	—
B9 - B1-1	—	—	—	—	—	Not Occupied	B9 - B11	—	—	—	—	—
B1-2	0.8	BU	1857	I	—	Left Front Midrange Speaker [+] Control	B1-2	0.8	BU	1857	V	—
C1	0.5	PU / WH	6628	II	—	Left Front Side Impact Sensor Low Reference	C1	0.5	PU / WH	6628	IV	—
C2	0.5	WH	2132	II	—	Left Front Side Impact Sensor Signal	C2	0.5	WH	2132	IV	—
C3 - C6	—	—	—	—	—	Not Occupied	C3 - C6	—	—	—	—	—
C7	0.5	BU / WH	1314	II	—	Left Front Turn Signal Lamp Control	C7	0.5	BU / WH	1314	IV	—
C8	0.5	RD / WH	4340	II	—	Battery Positive Voltage	C8	0.5	RD / WH	4340	IV	—
C9 - C1-1	—	—	—	—	—	Not Occupied	C9 - C1-1	—	—	—	—	—
C1-2	0.8	BU	1957	I	—	Left Front Midrange Speaker [-] Control	C1-2	0.8	BU	1957	V	—

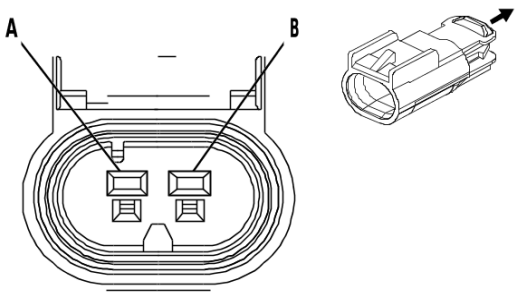
X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
D1 - D3	—	—	—	—	—	Not Occupied	D1 - D3	—	—	—	—	—
D4	3	TN	167	III	—	Right Front Window Down Switch Main Control Signal	D4	3	TN	167	VII	—
D5	3	BU	166	III	—	Right Front Window Up Switch Main Control Signal	D5	3	BU	166	VII	—
D6	3	GN	1001	III	—	Retained Accessory Power Ignition Voltage	D6	3	GN	1001	VII	—
D7	0.35	BN / WH	1498	II	—	Right Outside Rearview Mirror Motor Up Control	D7	0.5	BN / WH	1498	IV	—
D8	0.35	OG / WH	881	II	—	Right Outside Rearview Mirror Motor Right Control	D8	0.5	OG / WH	881	IV	—

X501 Airbag Wiring Harness to Front Side Door Door Wiring Harness - Driver



523630



681875

Connector Part Information

Harness Type: Airbag Wiring Harness
OEM Connector: 13510085
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed(BK)

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 13510099
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 GT Series, Sealed(BK)

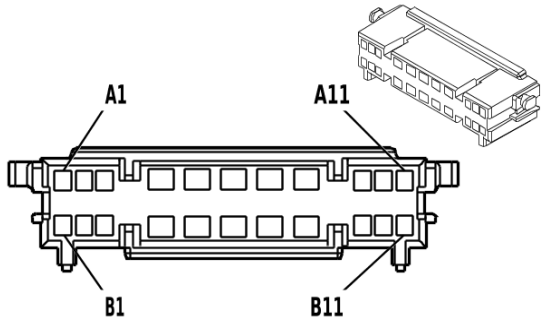
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

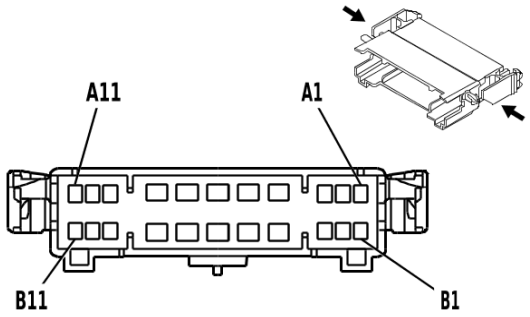
X501 Airbag Wiring Harness to Front Side Door Door Wiring Harness - Driver

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	PU / WH	6628	I	—	Left Front Side Impact Sensor Low Reference	A	0.5	PU / WH	6628	II	—
B	0.5	WH	2132	I	—	Left Front Side Impact Sensor Signal	B	0.5	WH	2132	II	—

X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness



524205



524211

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 15326063
Service Connector: Service by Harness - See Part Catalog
Description: 22-Way F 150, 280 GT Series, Sealed(GY)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15326064
Service Connector: Service by Harness - See Part Catalog
Description: 22-Way M 150, 280 GT Series, Sealed(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required
III	Not required	J-35616-4A (PU)	No Tool Required
IV	Not required	J-35616-3 (GY)	No Tool Required
V	Not required	J-35616-5 (PU)	No Tool Required

X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.8	OG	1853	I	—	Right Front Midrange Speaker [+] Control	A1	0.8	OG	1853	IV	—
A2	0.8	TN	294	I	—	Door Lock Actuator Unlock Control	A2	0.8	TN	294	IV	—
A3	0.8	OG	2267	I	—	Outside Rearview Mirror Heater Control	A3	0.8	OG	2267	IV	—
A4	3	BU	166	III	—	Right Front Window Up Switch Main Control Signal	A4	3	BU	166	V	—
A5	0.35 0.8	BK BK	1850 1850	III III	(AU3) - (A31) - (DE5) (AU3) + (DE5/ A31)	Ground Ground	A5	0.8	BK	1850	V	—

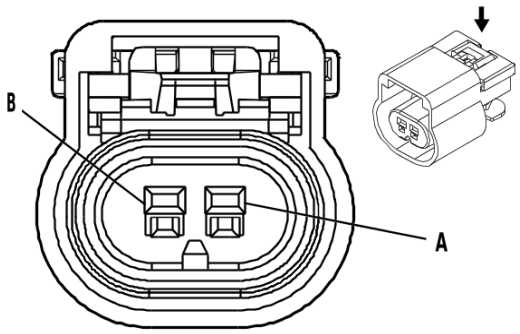
X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A6	0.35	BN / WH	1498	III	—	Right Outside Rearview Mirror Motor Up Control	A6	0.5	BN / WH	1498	V	—
A7	0.35	OG / WH	881	III	—	Right Outside Rearview Mirror Motor Right Control	A7	0.5	OG / WH	881	V	—
A8	0.35	TN / WH	746	III	—	Right Front Door Ajar Switch Signal	A8	0.35	TN / WH	746	V	—
A9	0.35	BK	1850	II	—	Ground	A9	0.35	BK	1850	IV	—
A1-0	0.5	GN	2134	II	—	Right Front Side Impact Sensor Signal	A1-0	0.5	GN	2134	IV	—
A1-1	0.35	BU	244	II	—	Passenger Door Lock Switch Lock Control	A11	0.35	BU	244	IV	—
B1	0.8	GN	1953	I	—	Right Front Midrange Speaker [-] Control	B1	0.8	GN	1953	IV	—
B2	0.8	GY	295	I	—	Door Lock Actuator Lock Control	B2	0.8	GY	295	IV	—
B3	0.5	BU / WH	1315	II	UFT	Right Front Turn Signal Lamp Control	B3	0.5	BU / WH	1315	IV	UFT
B4	3	TN	167	III	—	Right Front Window Down Switch Main Control Signal	B4	3	TN	167	V	—
B5	3	GN	1001	III	—	Retained Accessory Power Ignition Voltage	B5	3	GN	1001	V	—
B6	0.35	BN / WH	230	III	—	Instrument Panel Lamp Dimming Control	B6	0.35	BN / WH	230	V	—
B7	0.35	PU / WH	889	III	—	Right Outside Rearview Mirror Motor Down Control	B7	0.5	PU / WH	889	V	—
B8	0.35	GN	1177	III	—	Right Front Door Open Switch Signal	B8	0.35	GN	1177	V	—
B9	—	—	—	—	—	Not Occupied	B9	—	—	—	—	—
B1-0	0.5	WH / BK	6629	II	—	Right Front Side Impact Sensor Low Reference	B1-0	0.5	WH / BK	6629	IV	—

X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
B1-1	0.35	BU	245	II	—	Passenger Door Lock Switch Unlock Control	B11	0.35	BU	245	IV	—

X601 Side Impact Sensor - Right Front Jumper Wiring Harness to Front Side Door Door Wiring Harness - Passenger (ASF)



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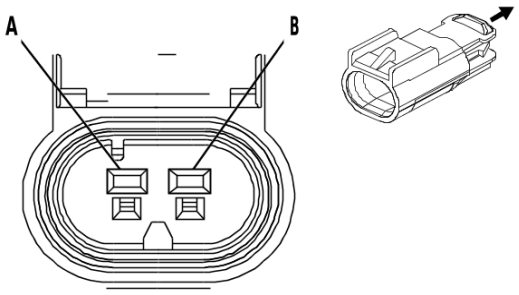


681875

Connector Part Information

Harness Type: Side Impact Sensor - Right Front Jumper Wiring Harness

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 13510099

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 150 GT Series, Sealed(BK)

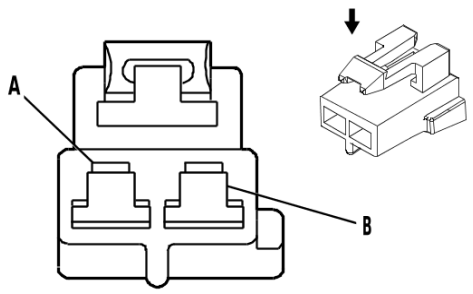
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X601 Side Impact Sensor - Right Front Jumper Wiring Harness to Front Side Door Door Wiring Harness - Passenger (ASF)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	WH / BK	6629	I	—	Right Front Side Impact Sensor Low Reference	A	0.5	WH / BK	6629	II	—
B	0.5	GN	2134	I	—	Right Front Side Impact Sensor Signal	B	0.5	GN	2134	II	—

X901 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness - Left



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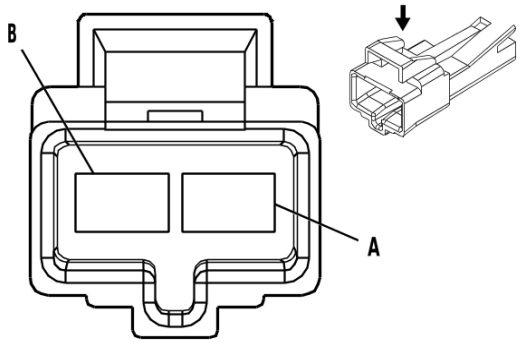


38284

Connector Part Information

Harness Type: Rear Window Defogger Wiring Harness
OEM Connector: 12064749
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series(BK)

Connector Part Information

Harness Type: Rear Door Door Wiring Harness - Left
OEM Connector: 12064750
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 480 Metri-Pack Series(BK)

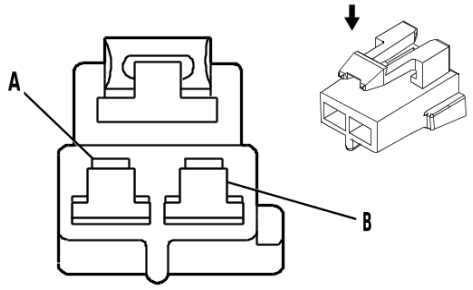
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-40 (BU)	No Tool Required
II	Not required	J-35616-40 (BU)	No Tool Required

X901 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness - Left

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	PU	293	I	—	Rear Defogger Grid Control	A	5	PU	293	II	—
B	3	BK	850	I	—	Ground	B	3	BK	850	II	—

X902 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness



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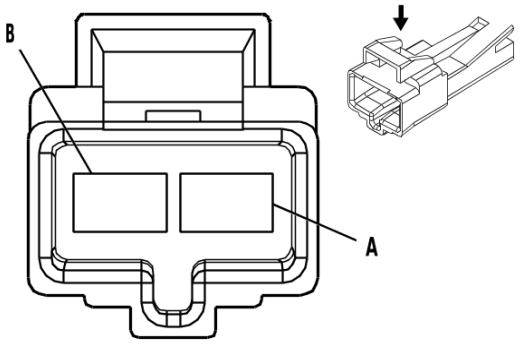


38284

Connector Part Information

Harness Type: Rear Window Defogger Wiring Harness
OEM Connector: 12064749
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series(BK)

Connector Part Information

Harness Type: Rear Door Door Wiring Harness
OEM Connector: 12064750
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 480 Metri-Pack Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-40 (BU)	No Tool Required
II	Not required	J-35616-40 (BU)	No Tool Required

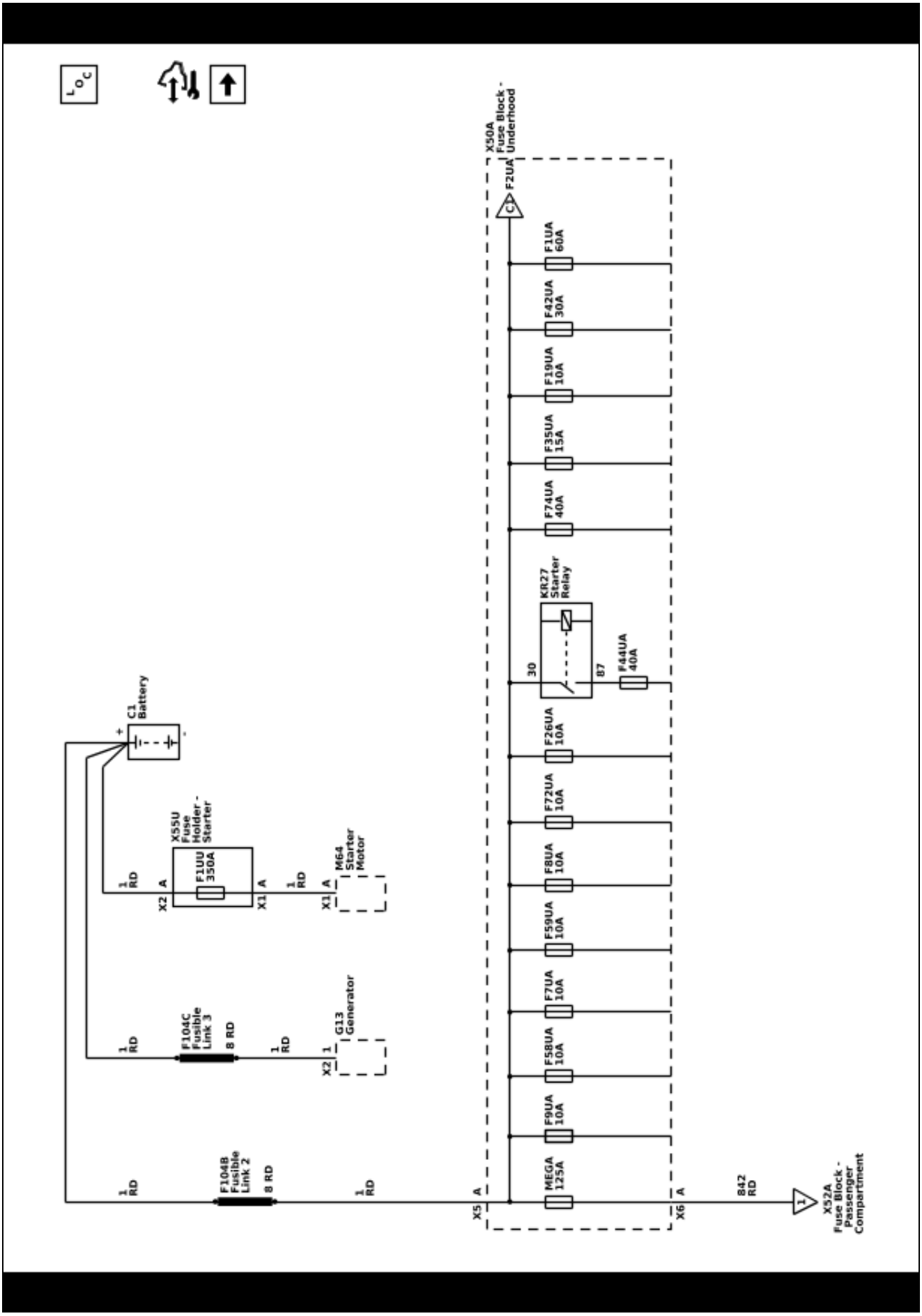
X902 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	PU	293	I	—	Rear Defogger Grid Control	A	5	PU	293	II	—
B	3	BK	1050	I	—	Ground	B	3	BK	1050	II	—

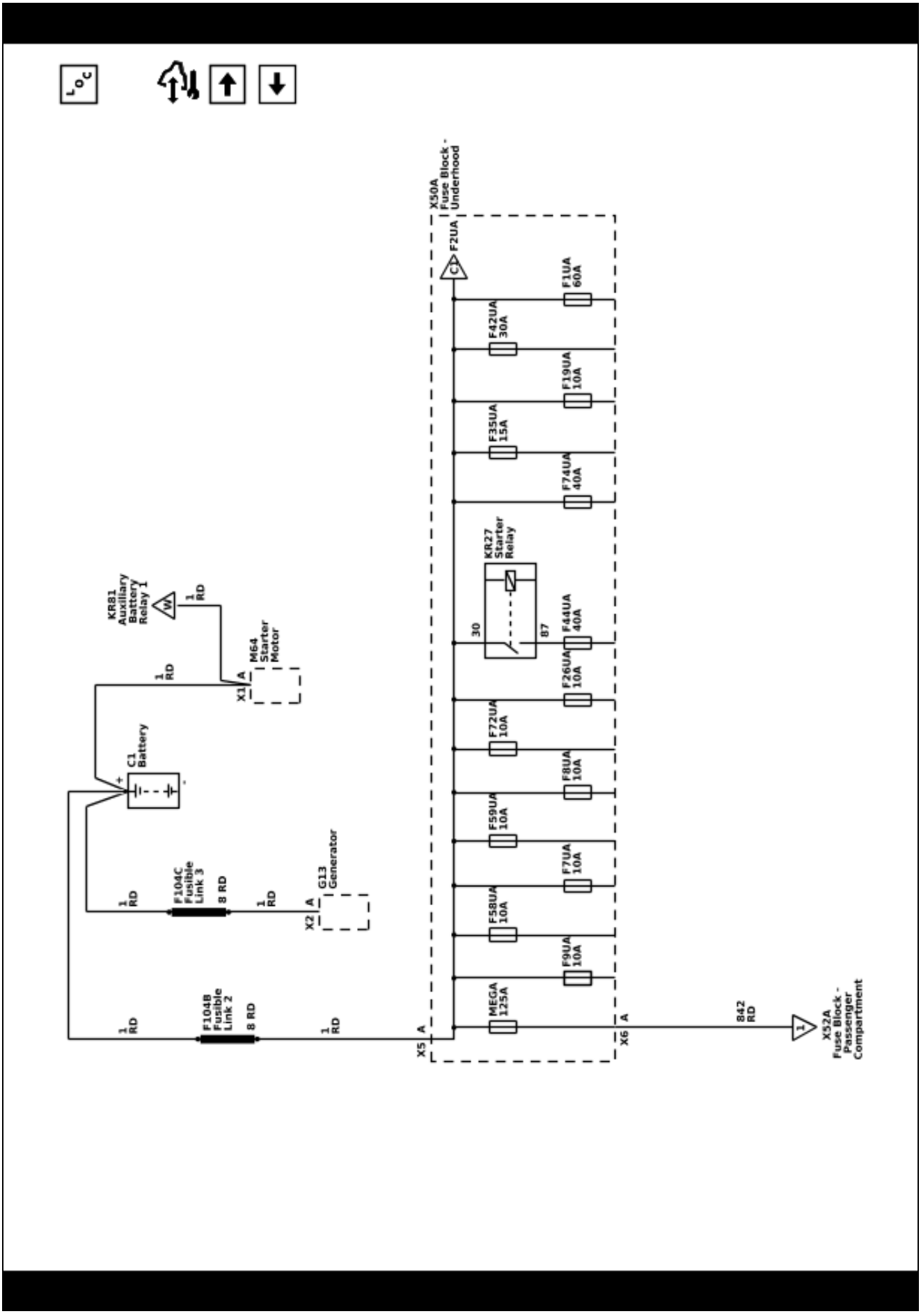
Wiring Systems and Power Management

Schematic and Routing Diagrams

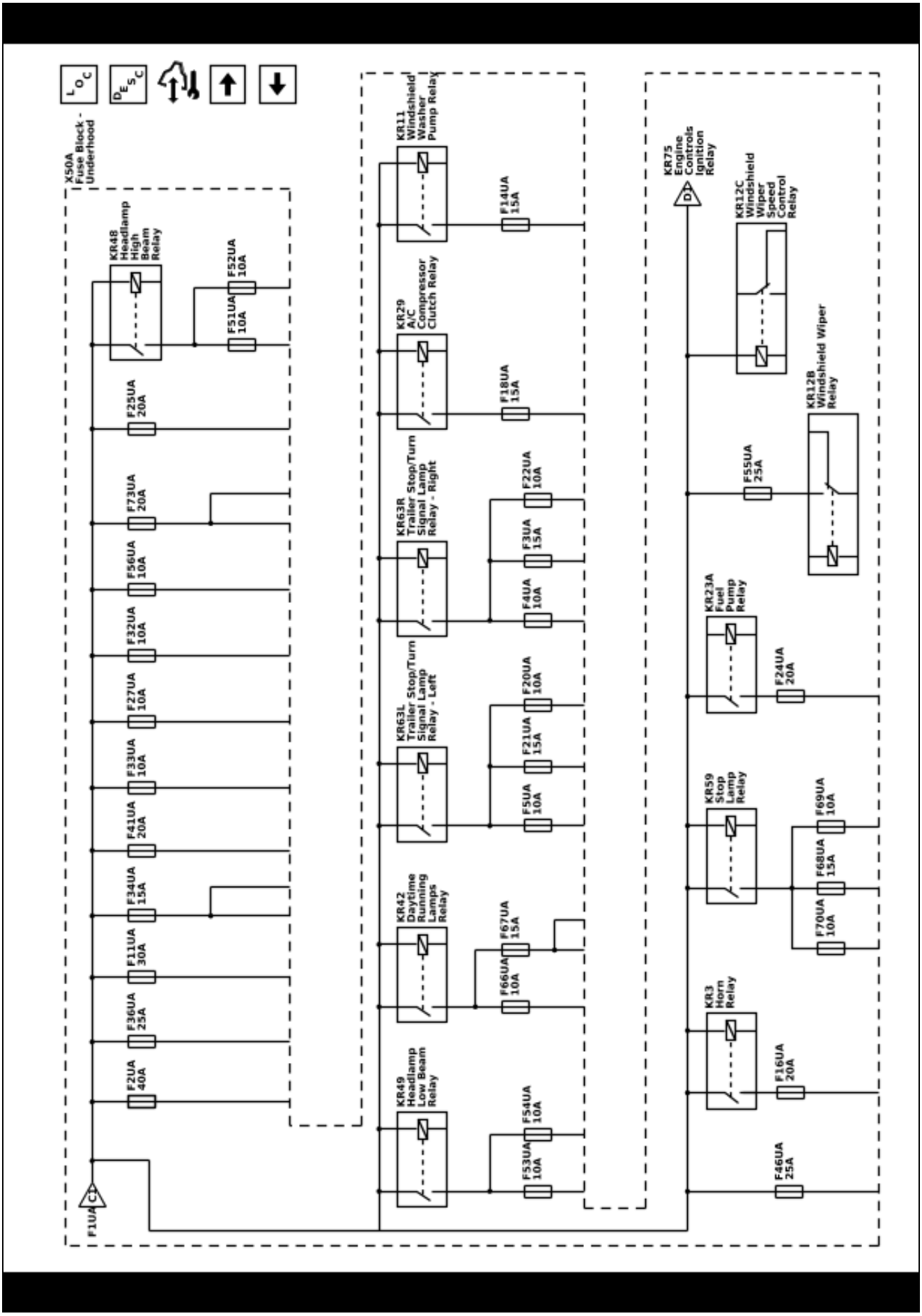
Power Distribution Schematics (Fusible Links and B+ Bus - Underhood Fuse Block - One Battery - 1 of 3)



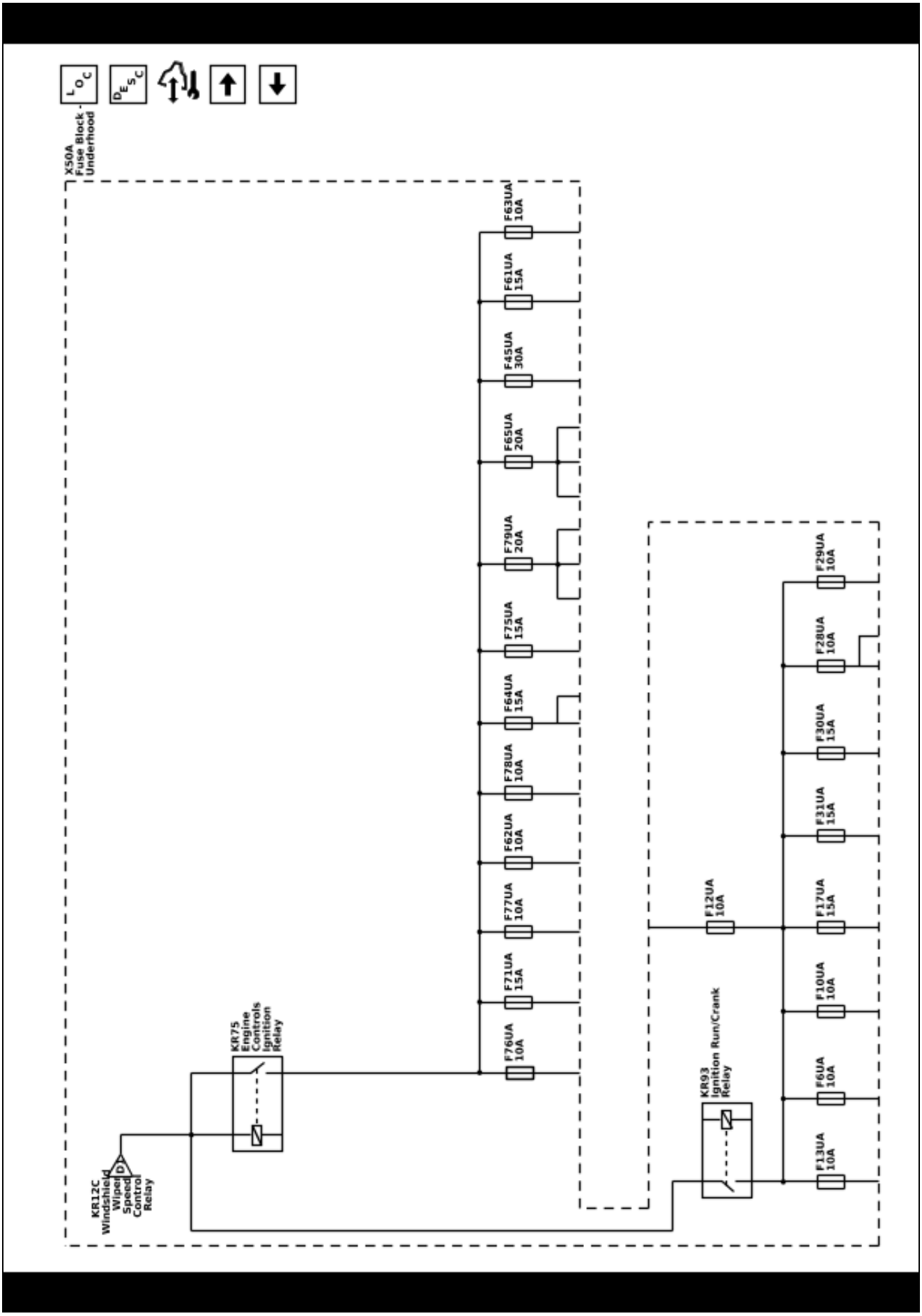
Power Distribution Schematics (Fusible Links and B+ Bus - Underhood Fuse Block - Two Batteries - 1 of 3)



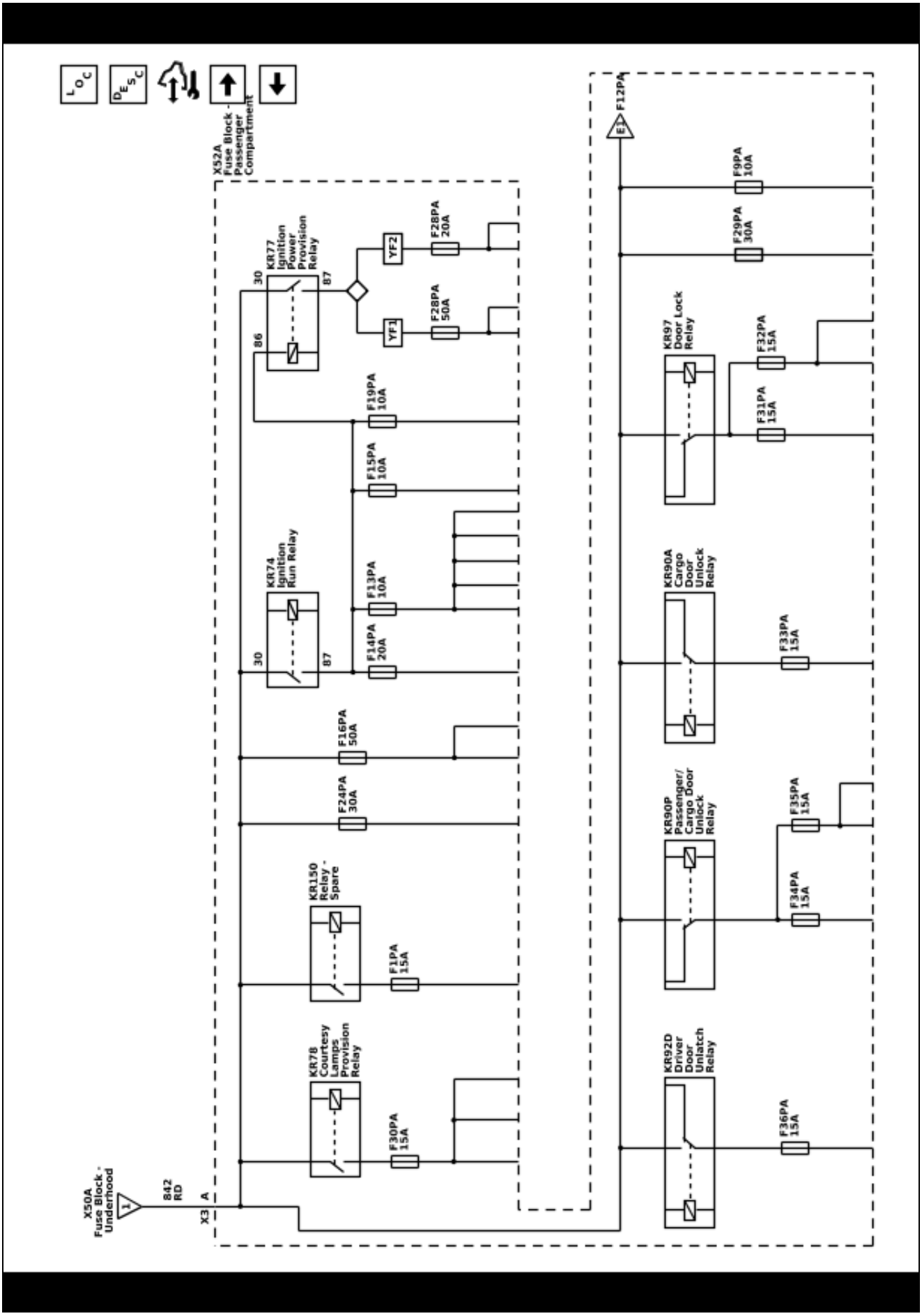
Power Distribution Schematics (B+ Bus - Underhood Fuse Block - 2 of 3)



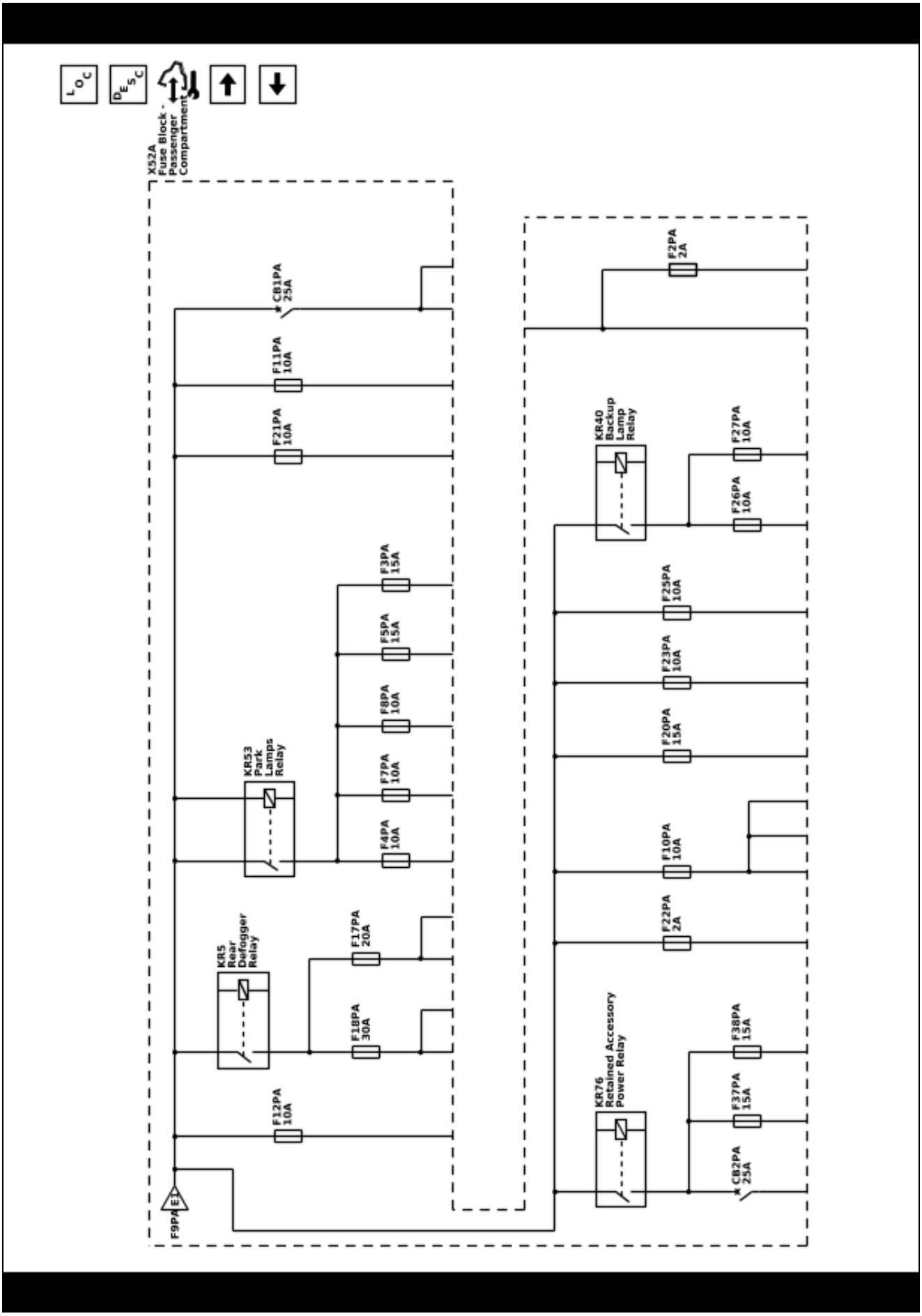
Power Distribution Schematics (B+ Bus - Underhood Fuse Block - 3 of 3)



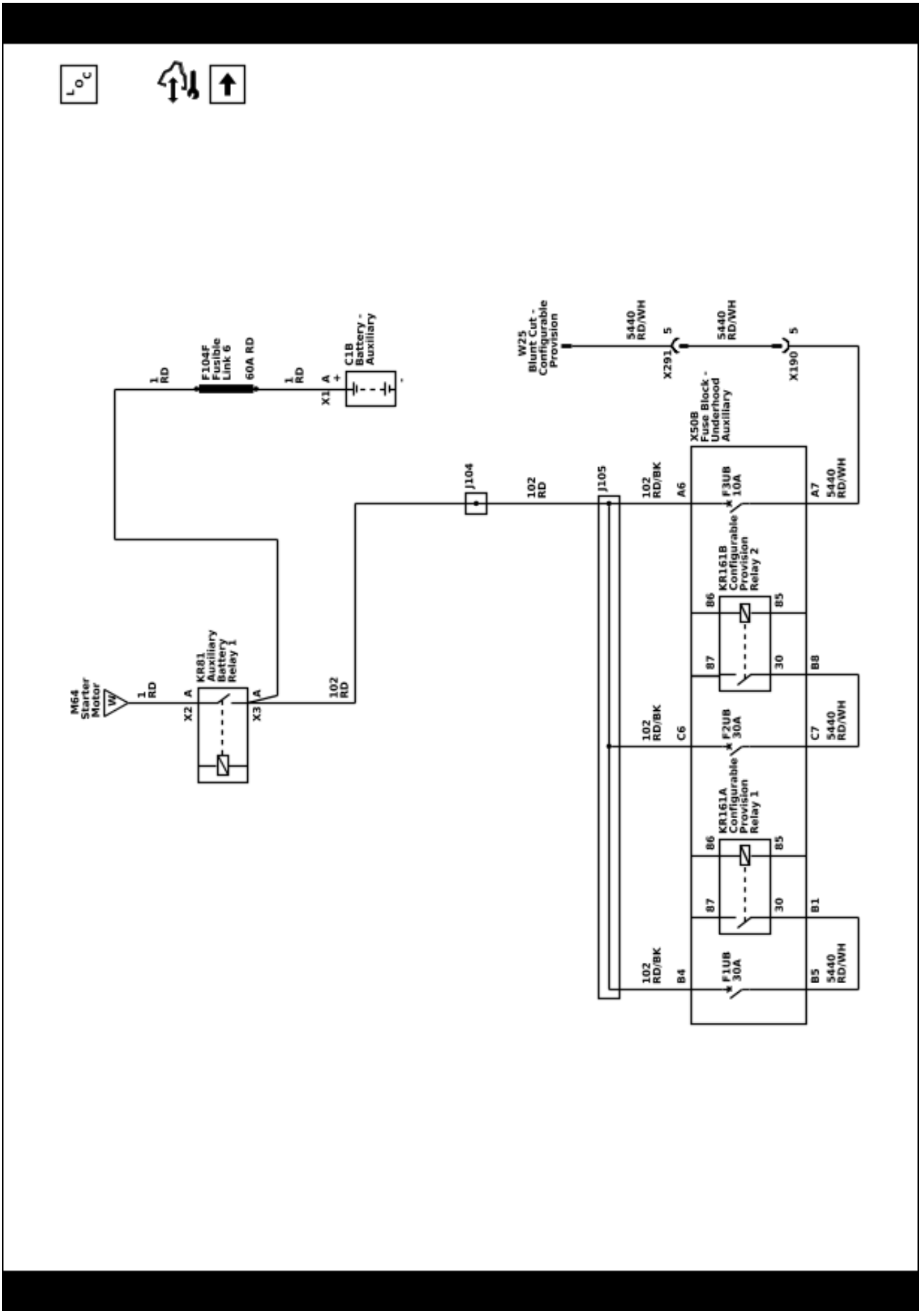
Power Distribution Schematics (B+ Bus - Passenger Compartment Fuse Block - 1 of 2)



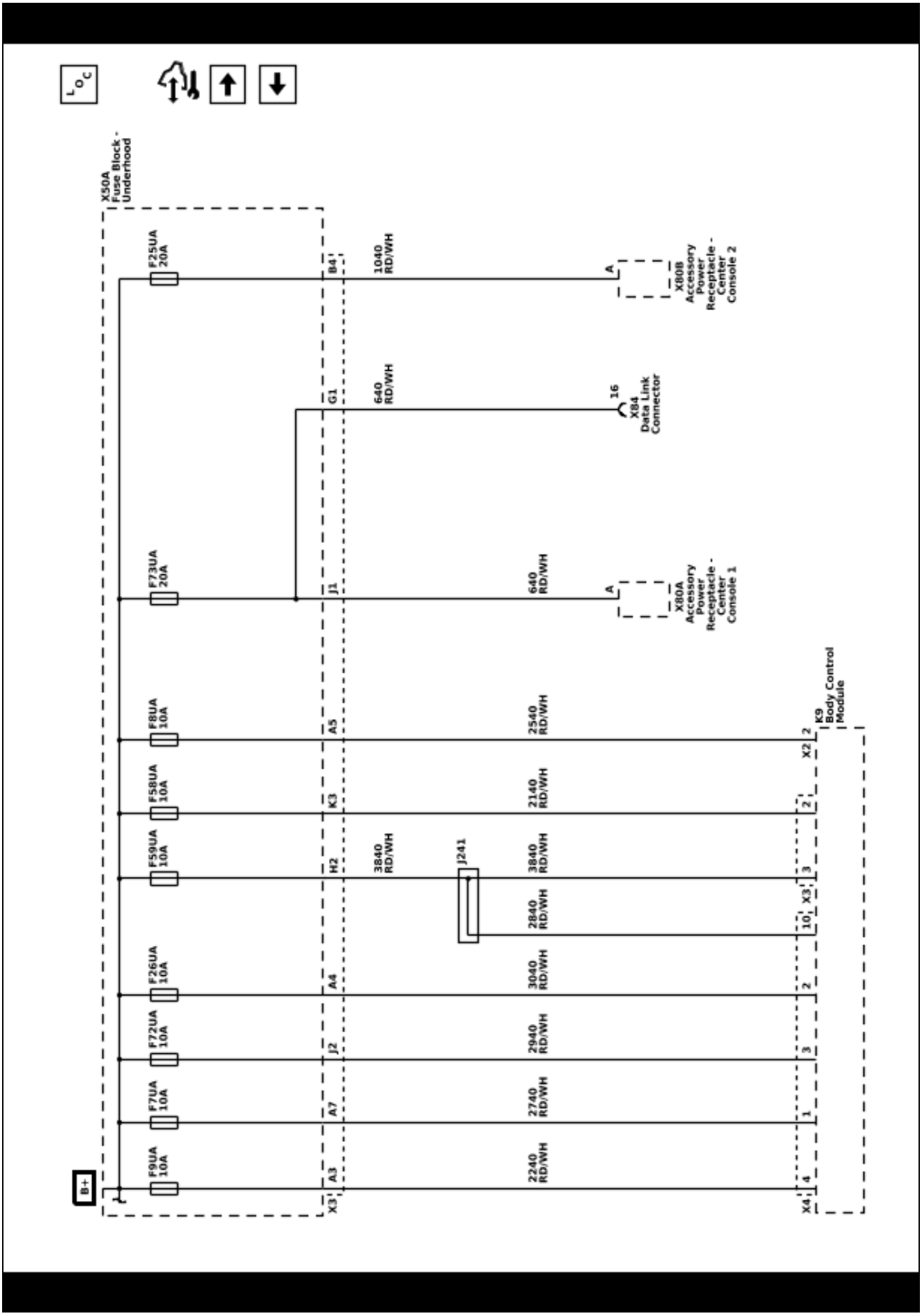
Power Distribution Schematics (B+ Bus - Passenger Compartment Fuse Block - 2 of 2)



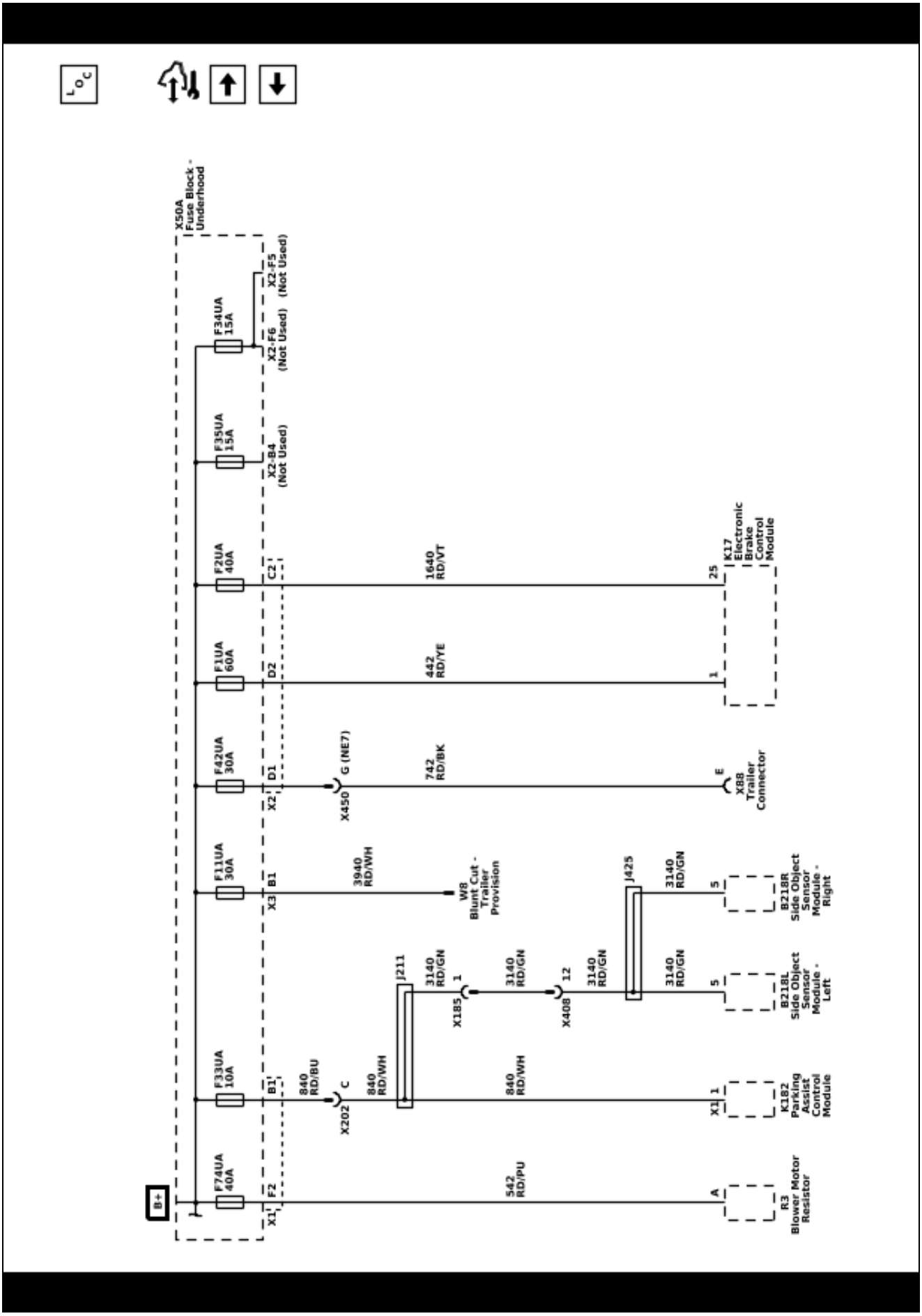
Power Distribution Schematics (Fuse Block - Underhood Auxiliary (9L7))



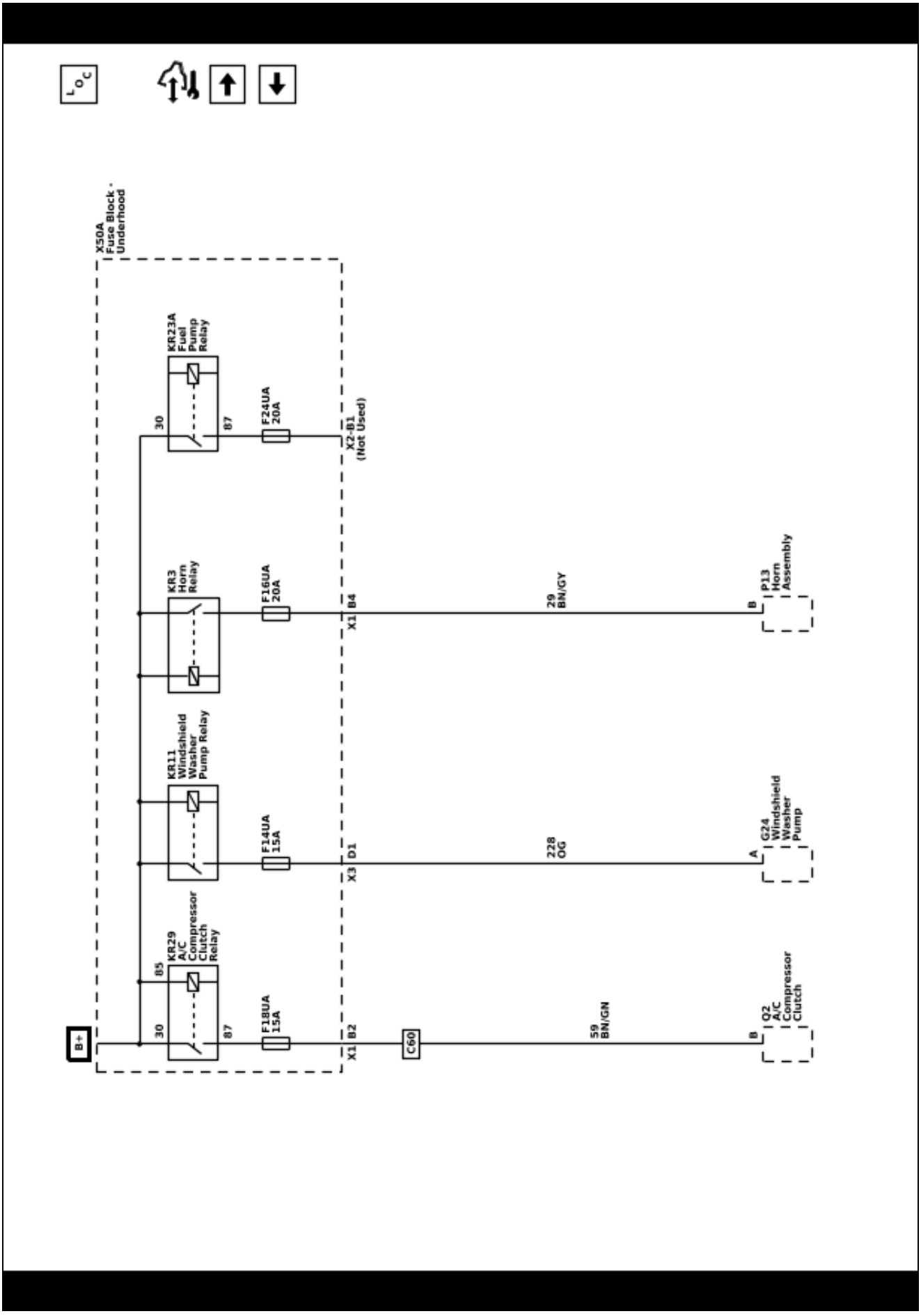
Power Distribution Schematics (Fuses F7UA, F8UA, F9UA, F25UA, F26A, F58UA, F59UA, F72UA, and F73UA)



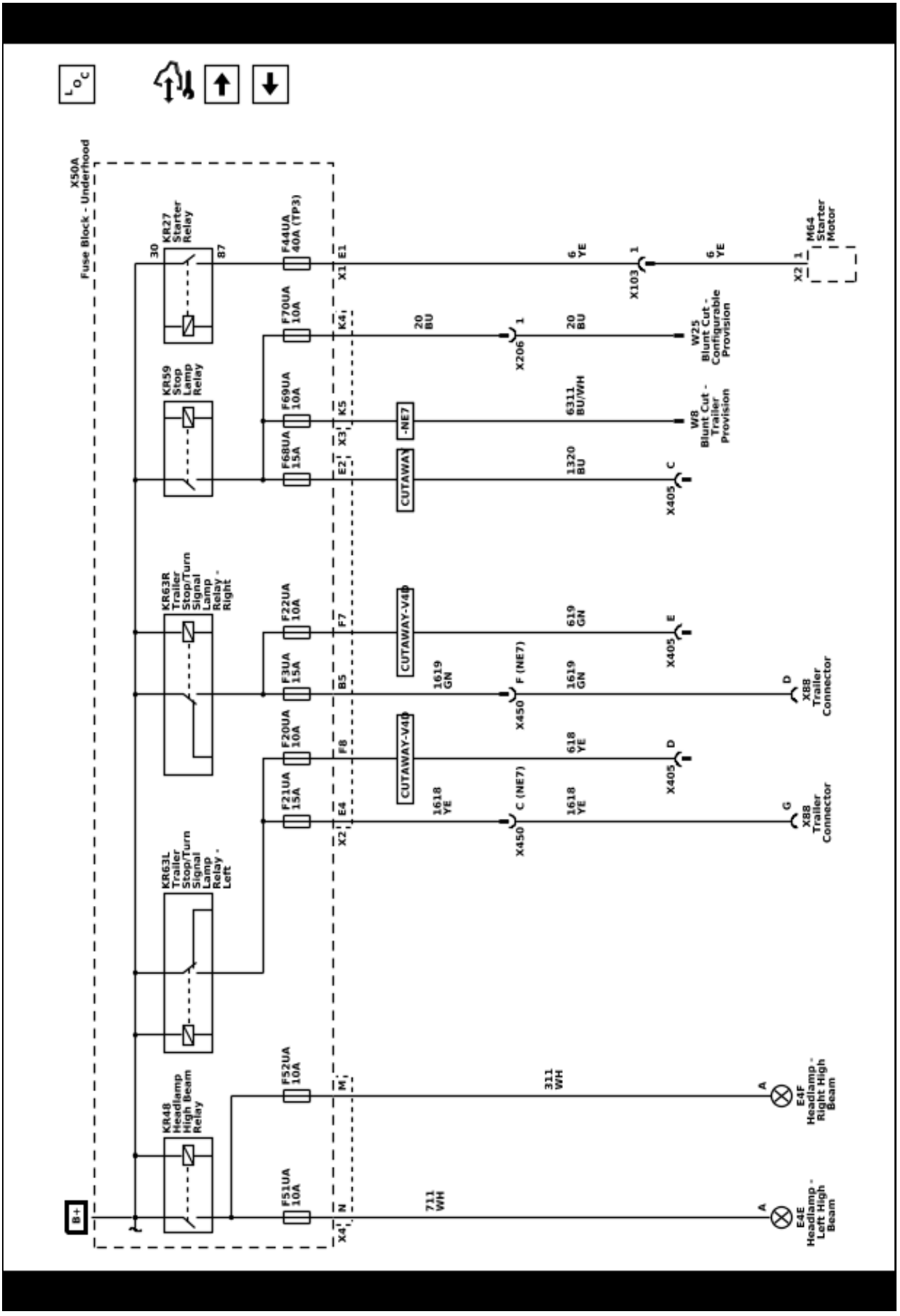
Power Distribution Schematics (Fuses F1UA, F2UA, F11UA, F33UA, F34UA, F35UA, F42UA, and F74UA)



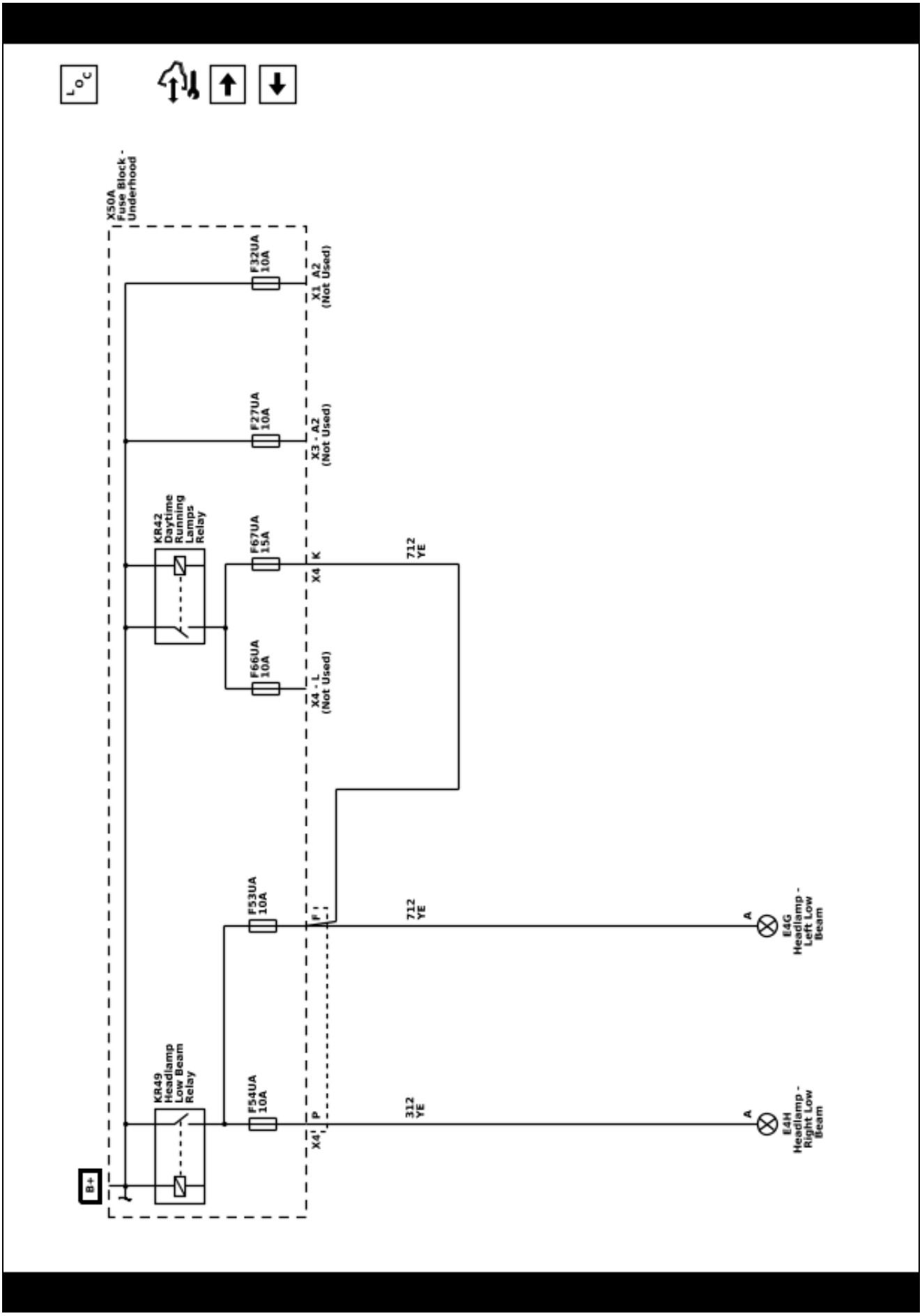
Power Distribution Schematics (Fuses F14UA, F16UA, F18UA, and F24UA)



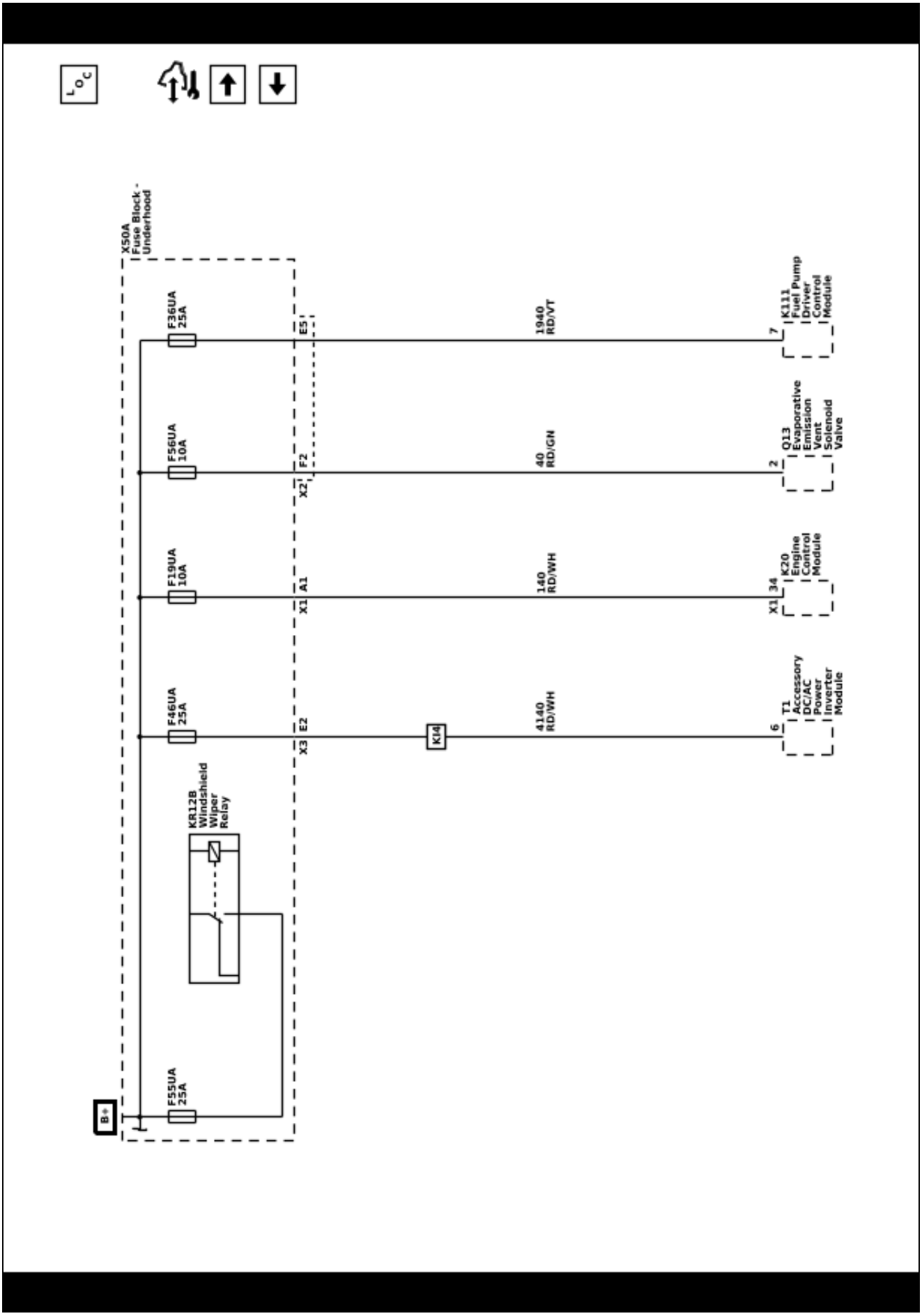
Power Distribution Schematics (Fuses F3UA, F20UA, F21UA, F22UA, F44UA, F51UA, F52UA, F68UA, F69UA, and F70UA)



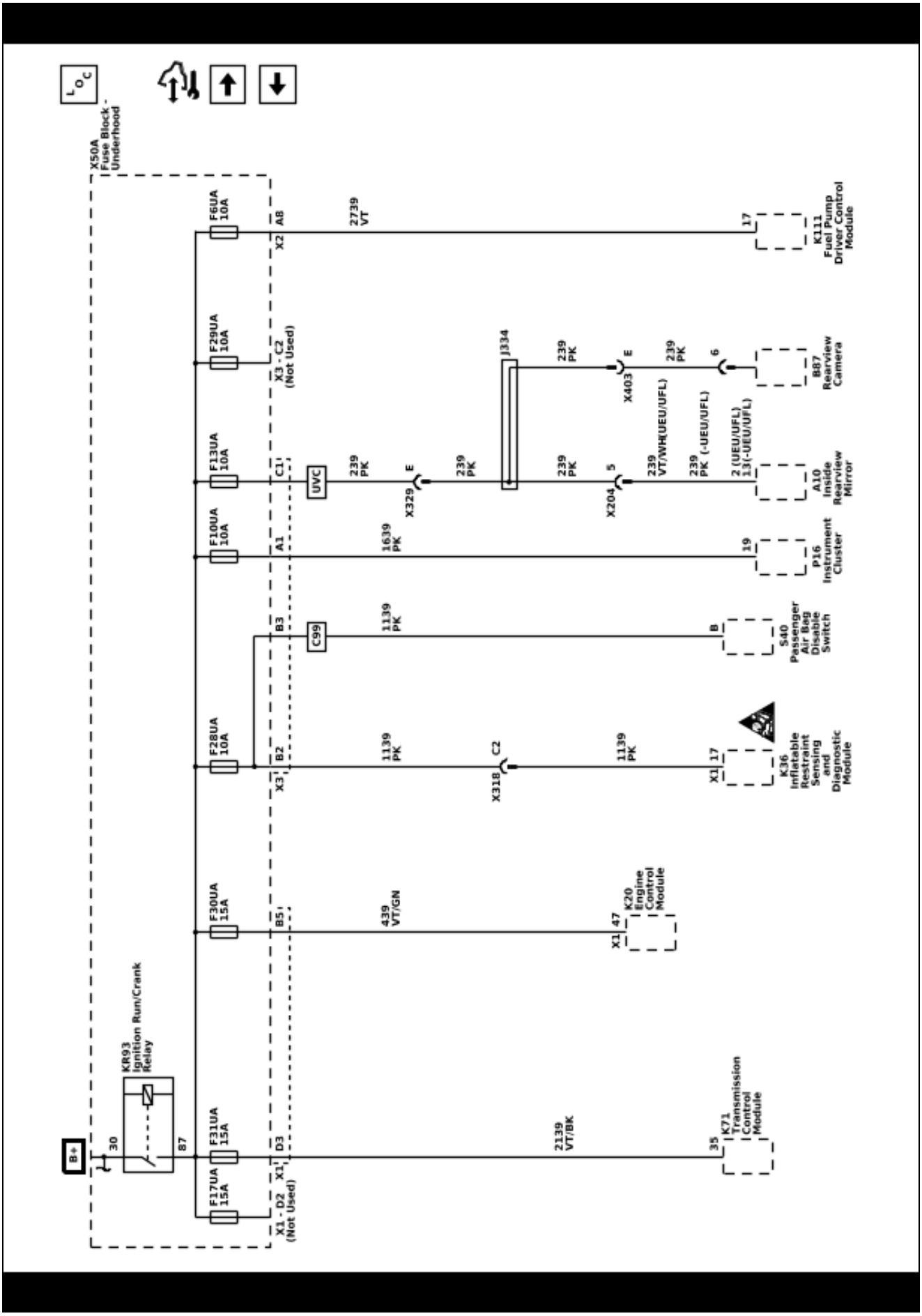
Power Distribution Schematics (Fuses F27UA, F32UA, F53UA, F54UA, F66UA, and F67UA)



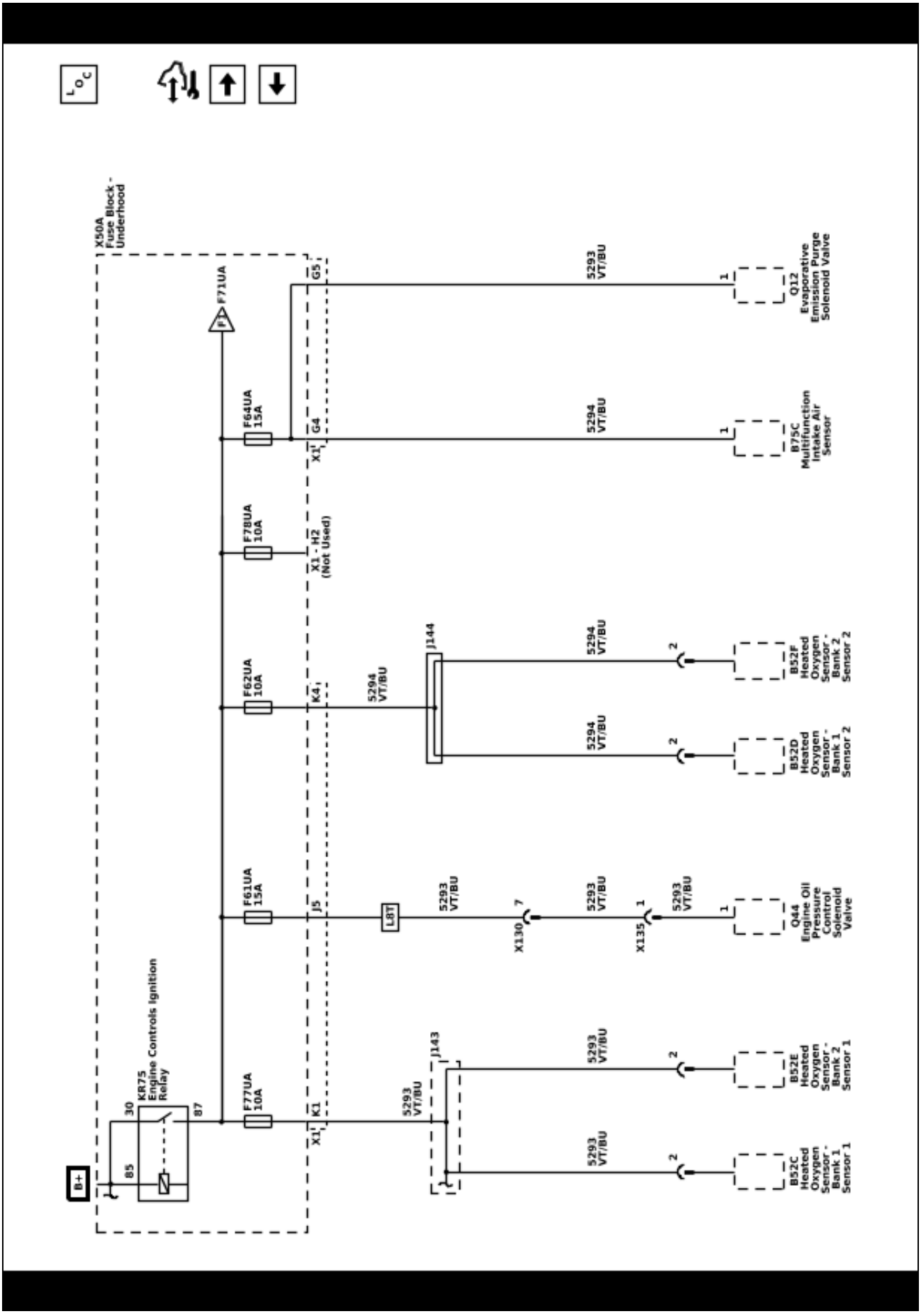
Power Distribution Schematics (Fuses F19UA, F36UA, F46UA, F55UA, and F56UA)



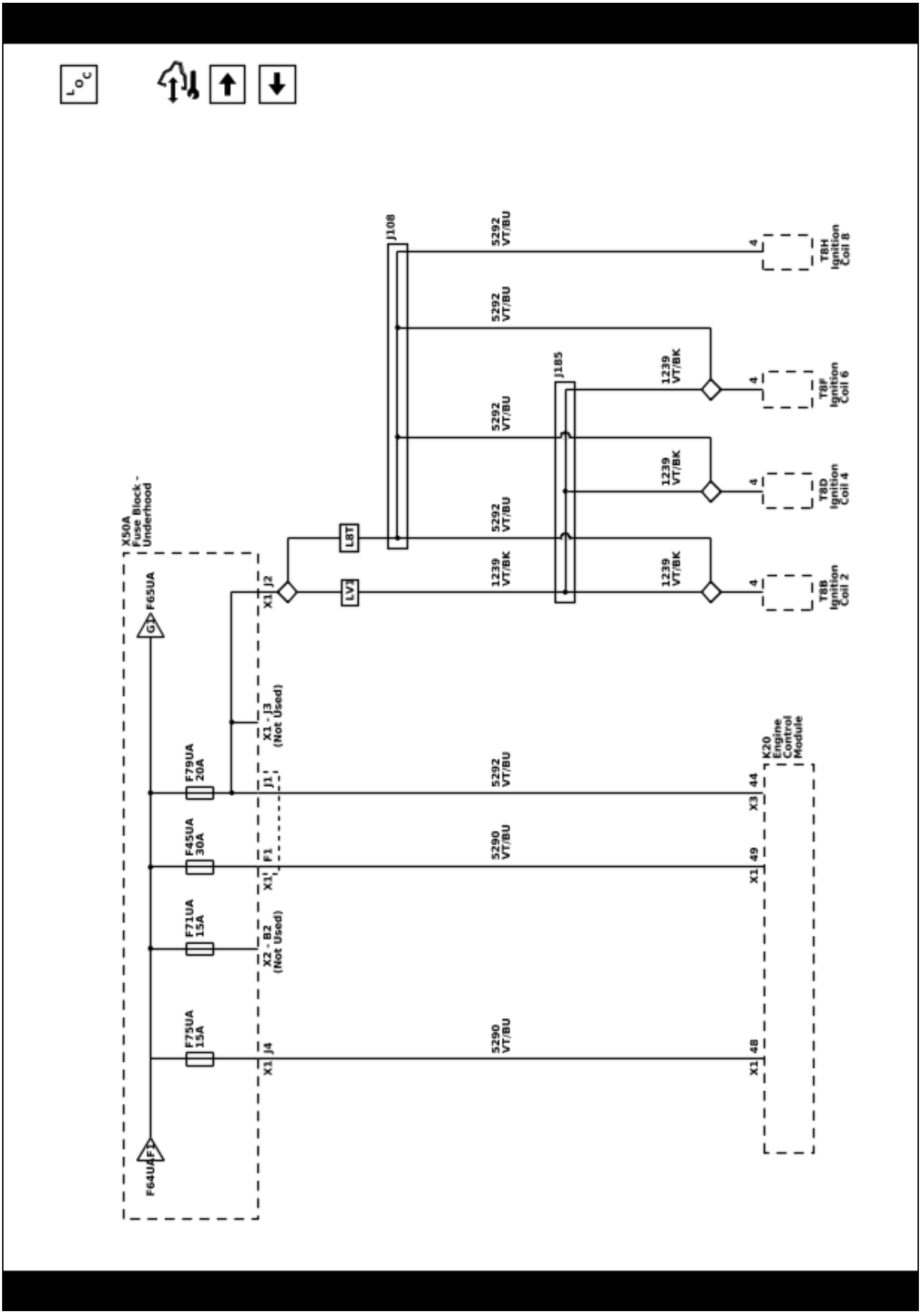
Power Distribution Schematics (Fuses F6UA, F10UA, F13UA, F17UA, F28UA, F29UA, F30UA, and F31UA)



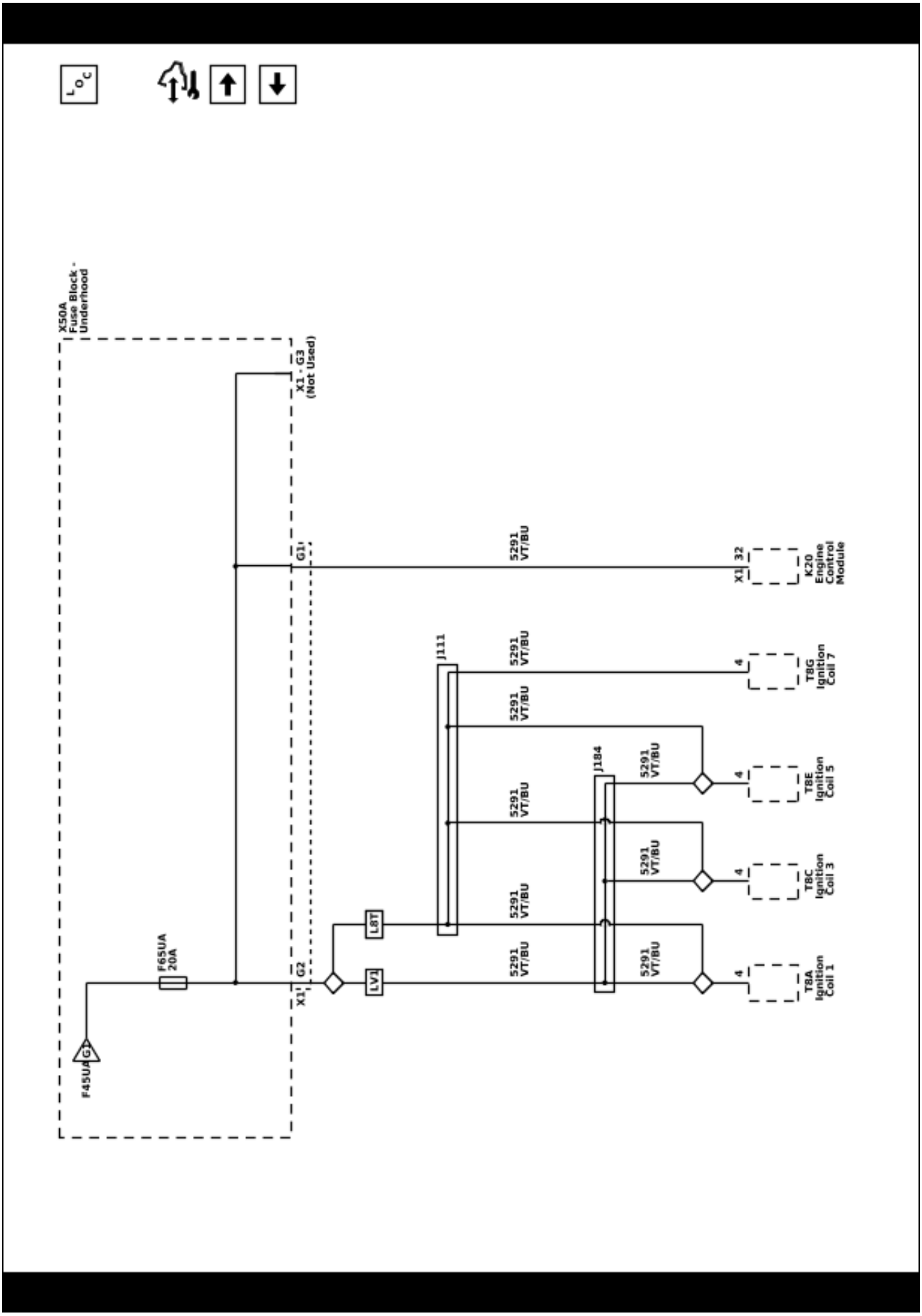
Power Distribution Schematics (Fuses F61UA, F62UA, F64UA, F77UA, and F78UA)



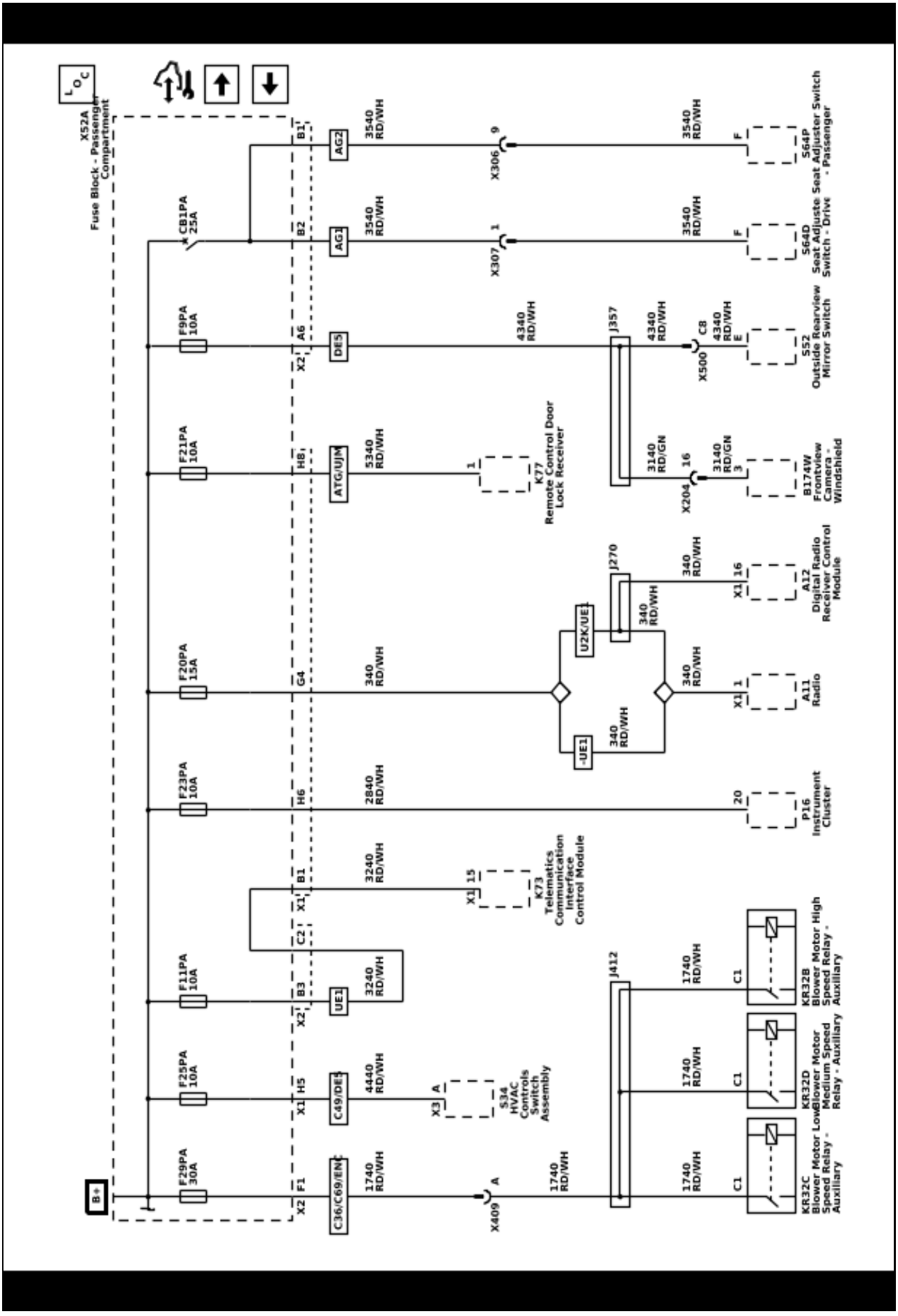
Power Distribution Schematics (Fuses F45UA, F71UA, F75UA, and F79UA)



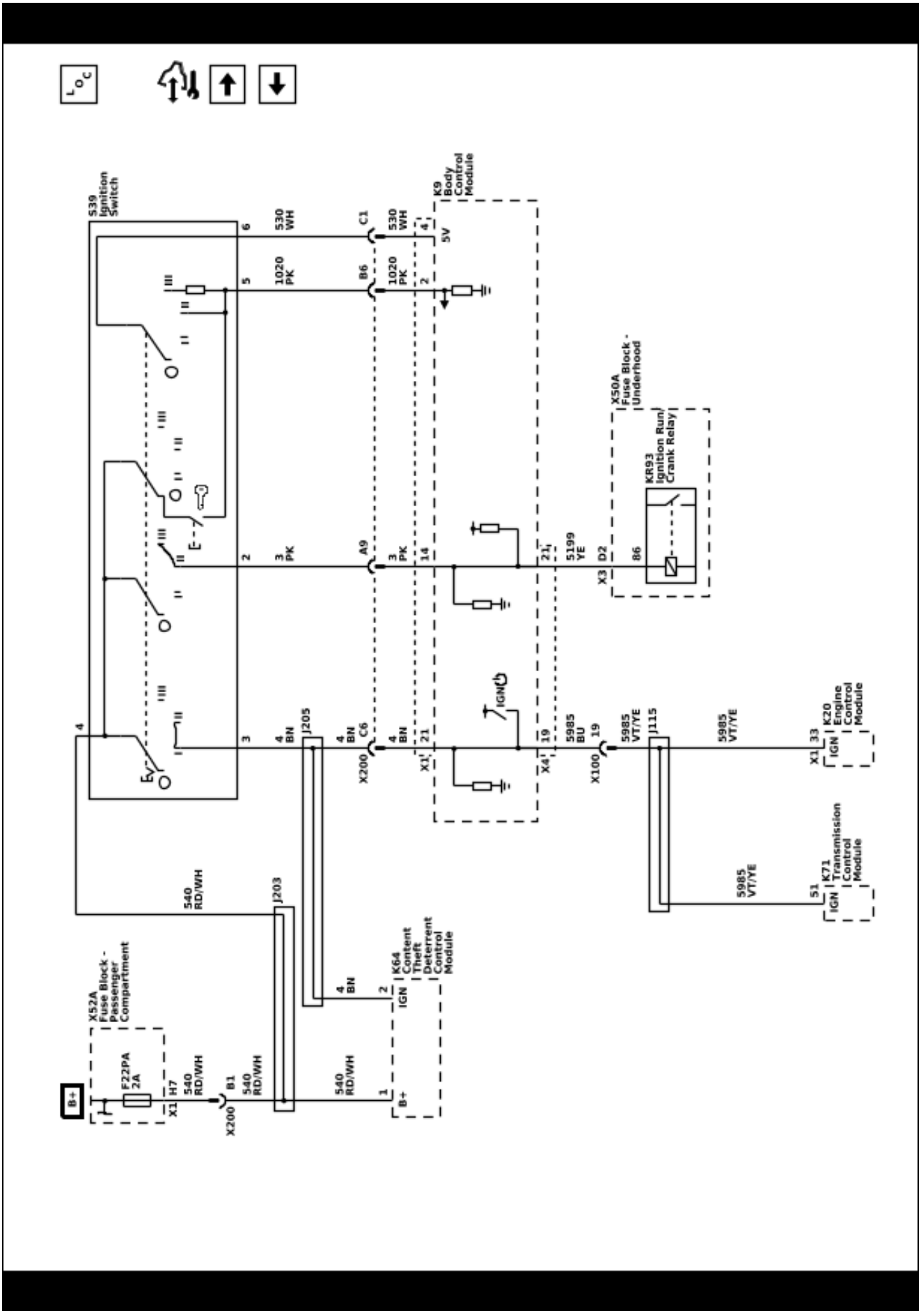
Power Distribution Schematics (Fuse F65UA)



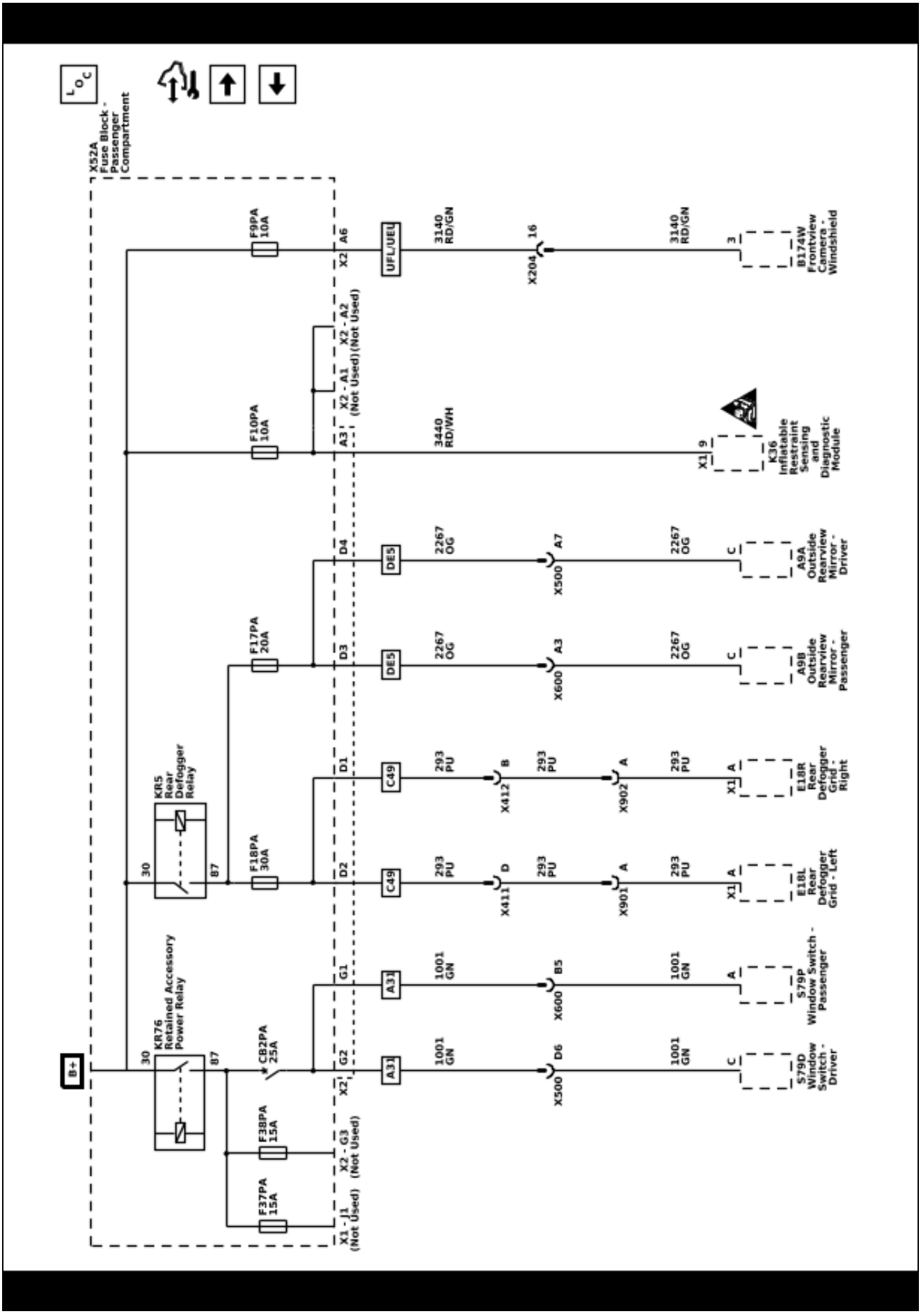
Power Distribution Schematics (Fuses F9PA, F11PA, F20PA, F21PA, F23PA, F25PA, F29PA, and Circuit Breaker CB1PA)



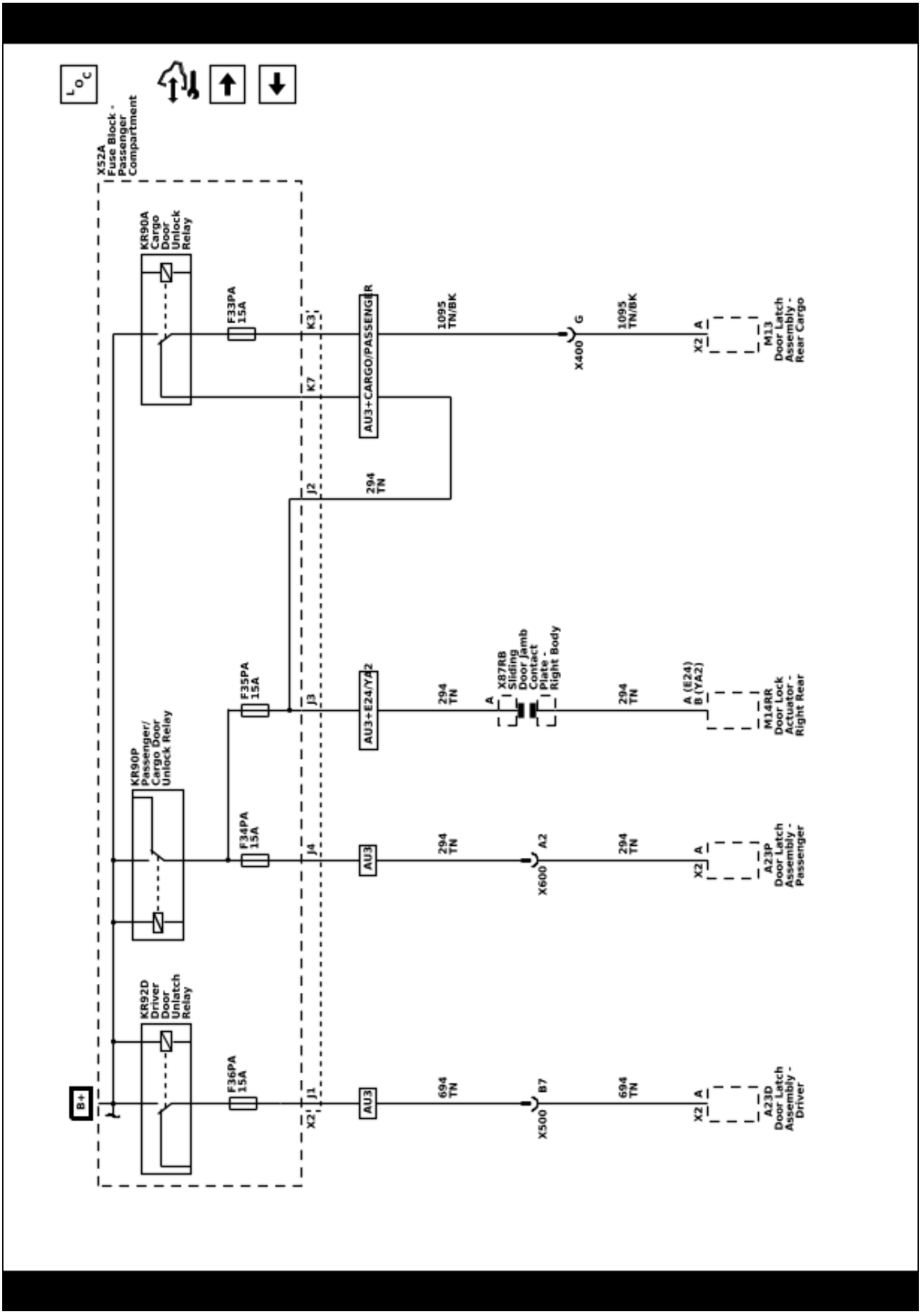
Power Distribution Schematics (Ignition Switch and Fuse F22PA)



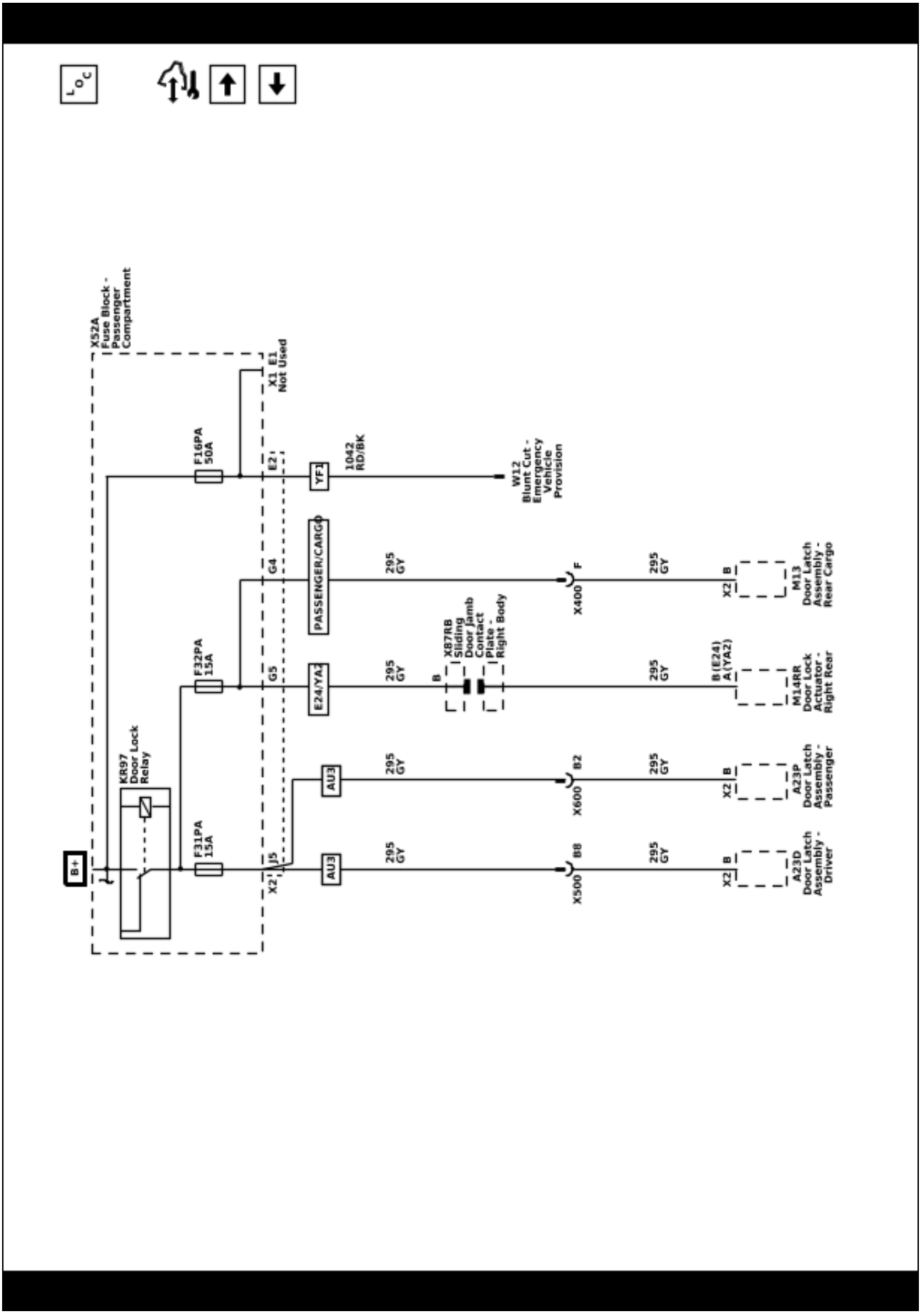
Power Distribution Schematics (Fuses F9PA, F10PA, F17PA, F18PA, F37PA, F38PA, and Circuit Breaker CB2PA)



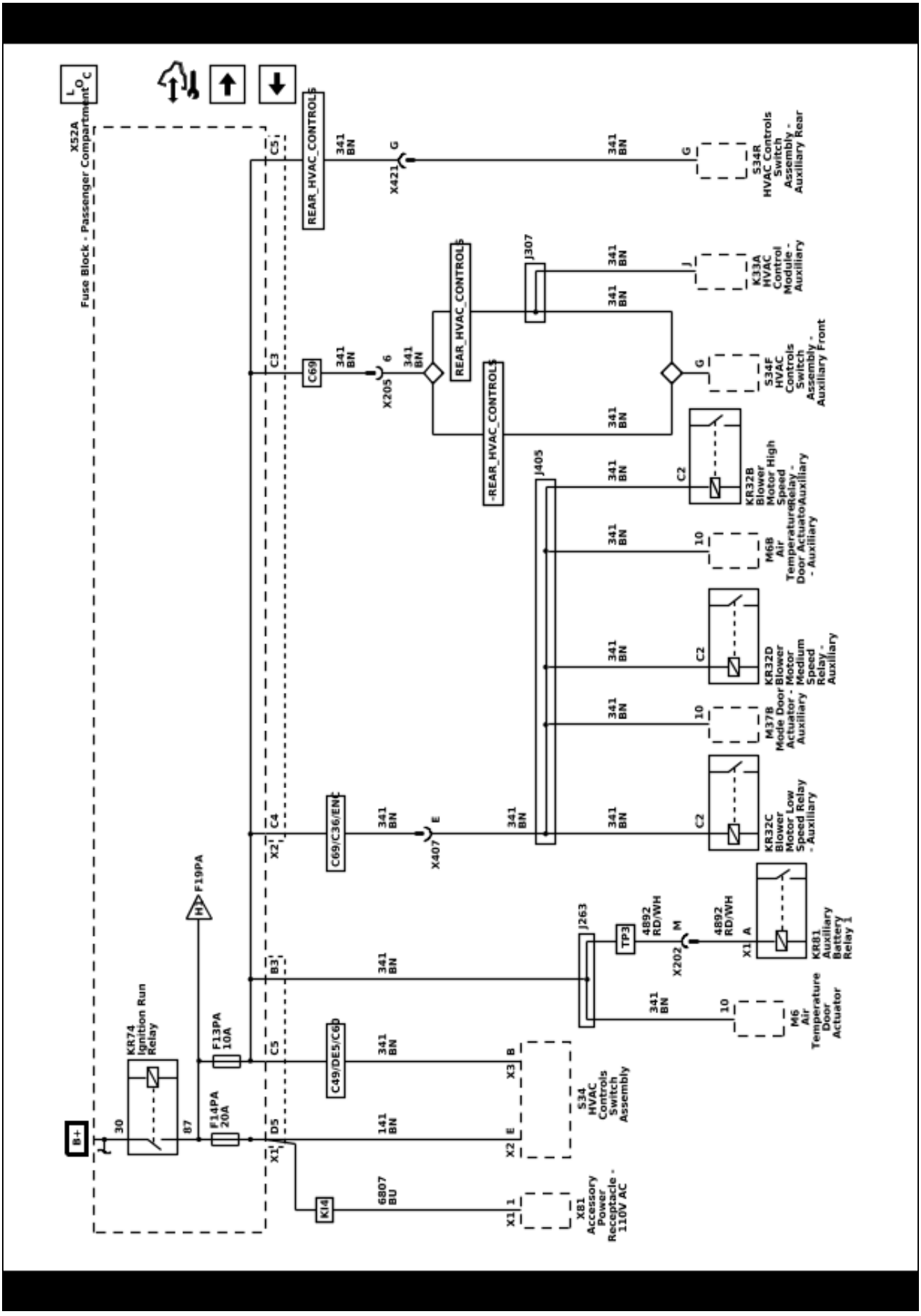
Power Distribution Schematics (Fuses F33PA, F34PA, F35PA, and F36PA)



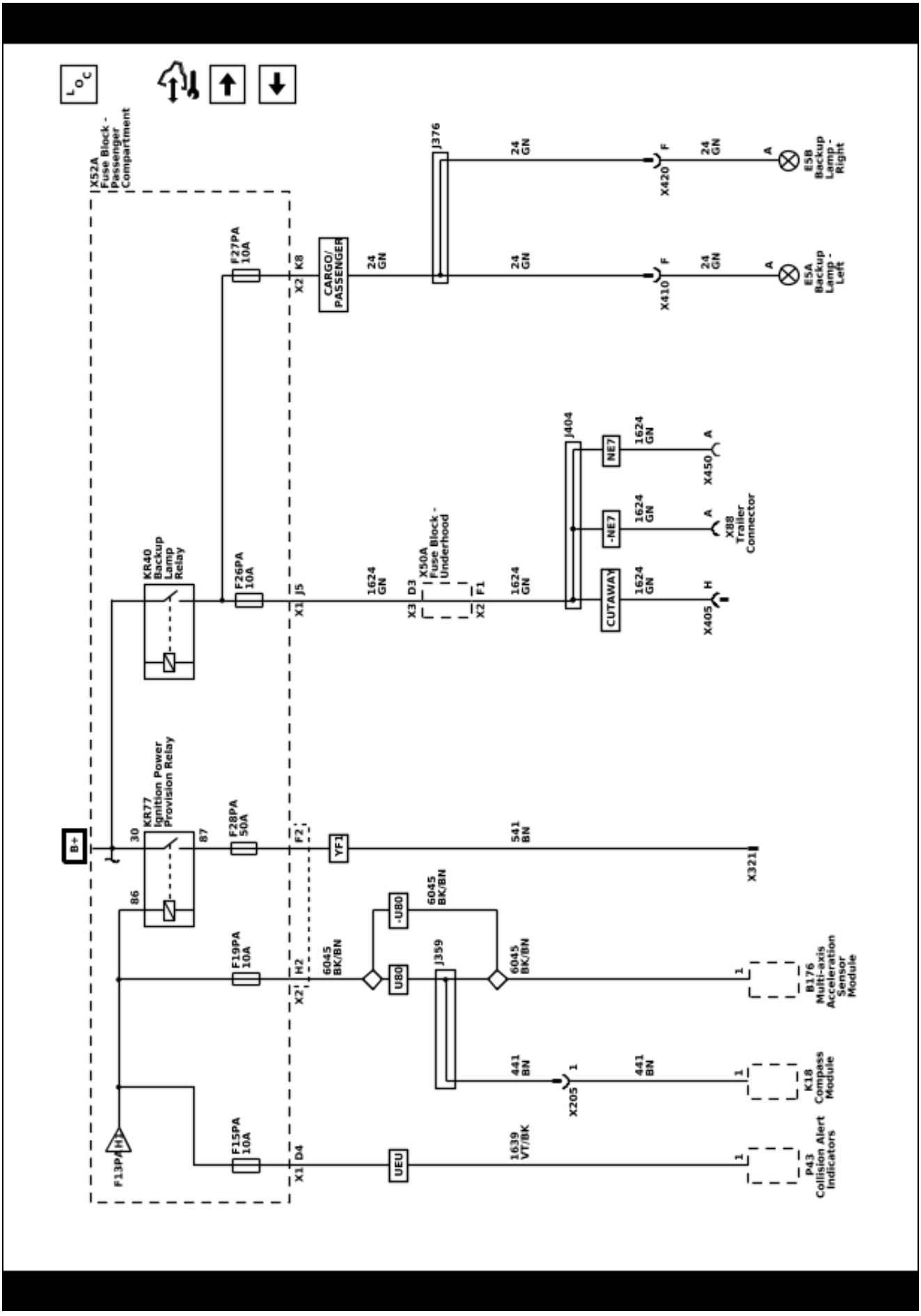
Power Distribution Schematics (Fuses F16PA, F31PA, and F32PA)



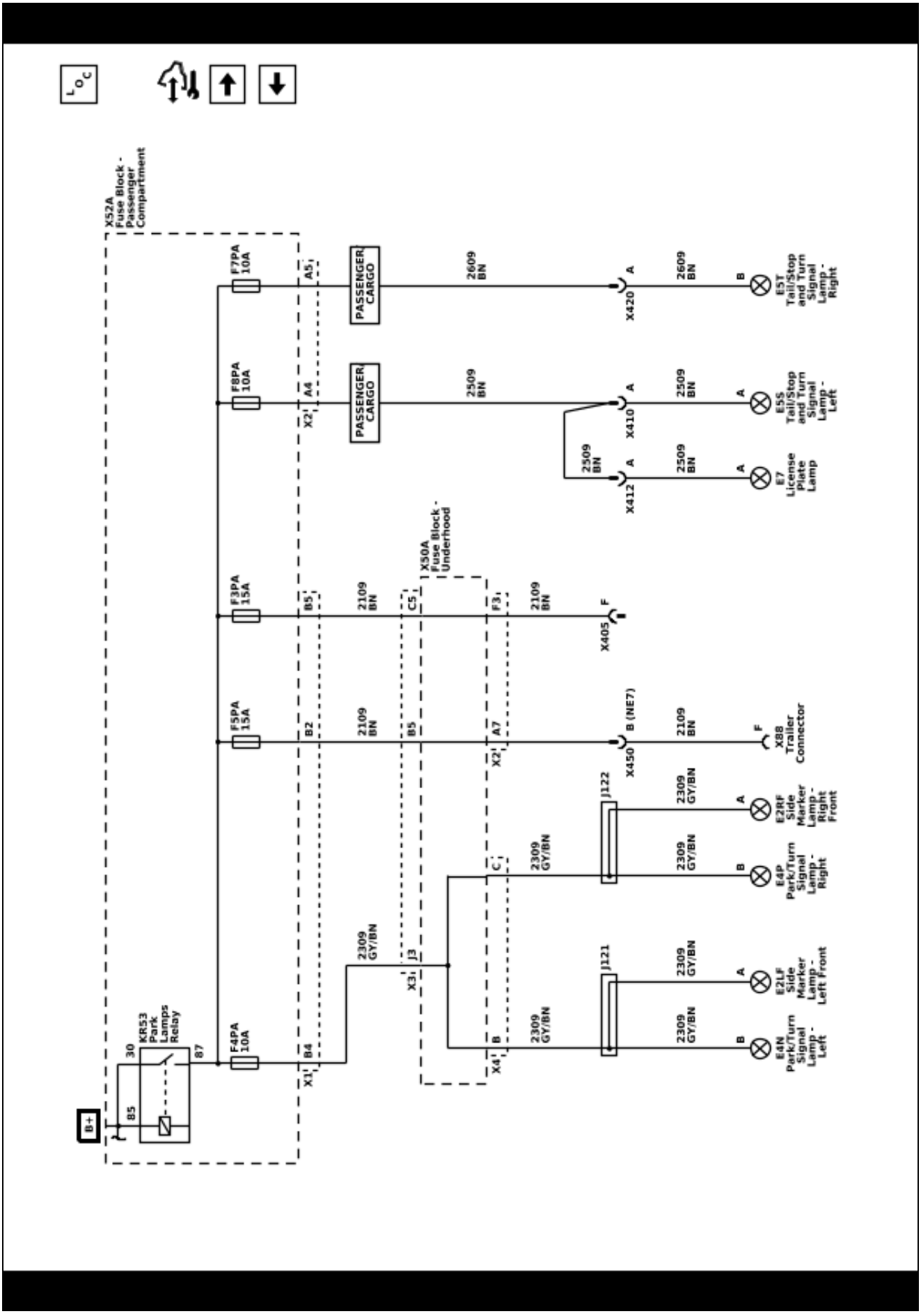
Power Distribution Schematics (Fuses F13PA and F14PA)



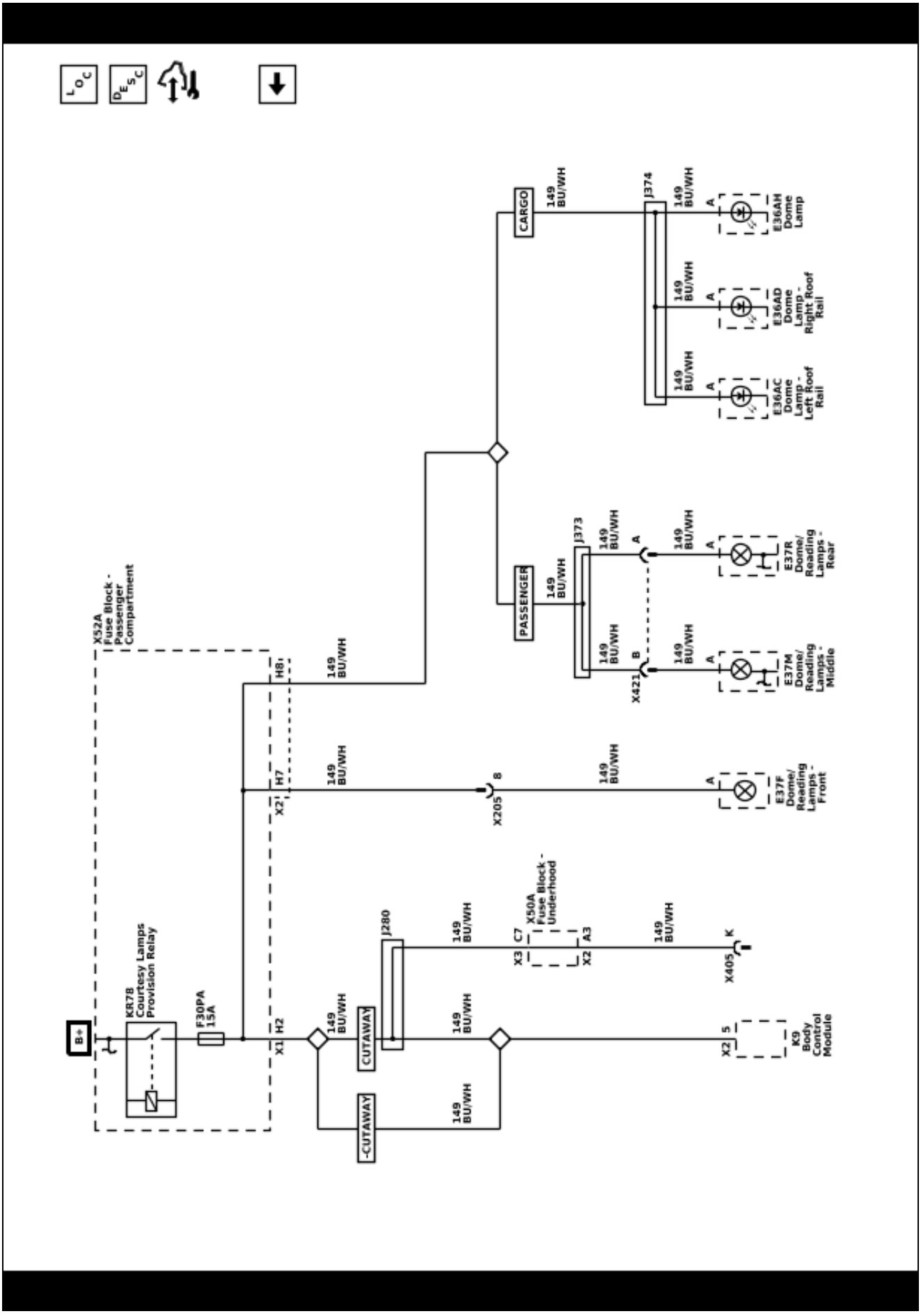
Power Distribution Schematics (Fuses F15PA, F19PA, F26PA, F27PA, and F28PA)



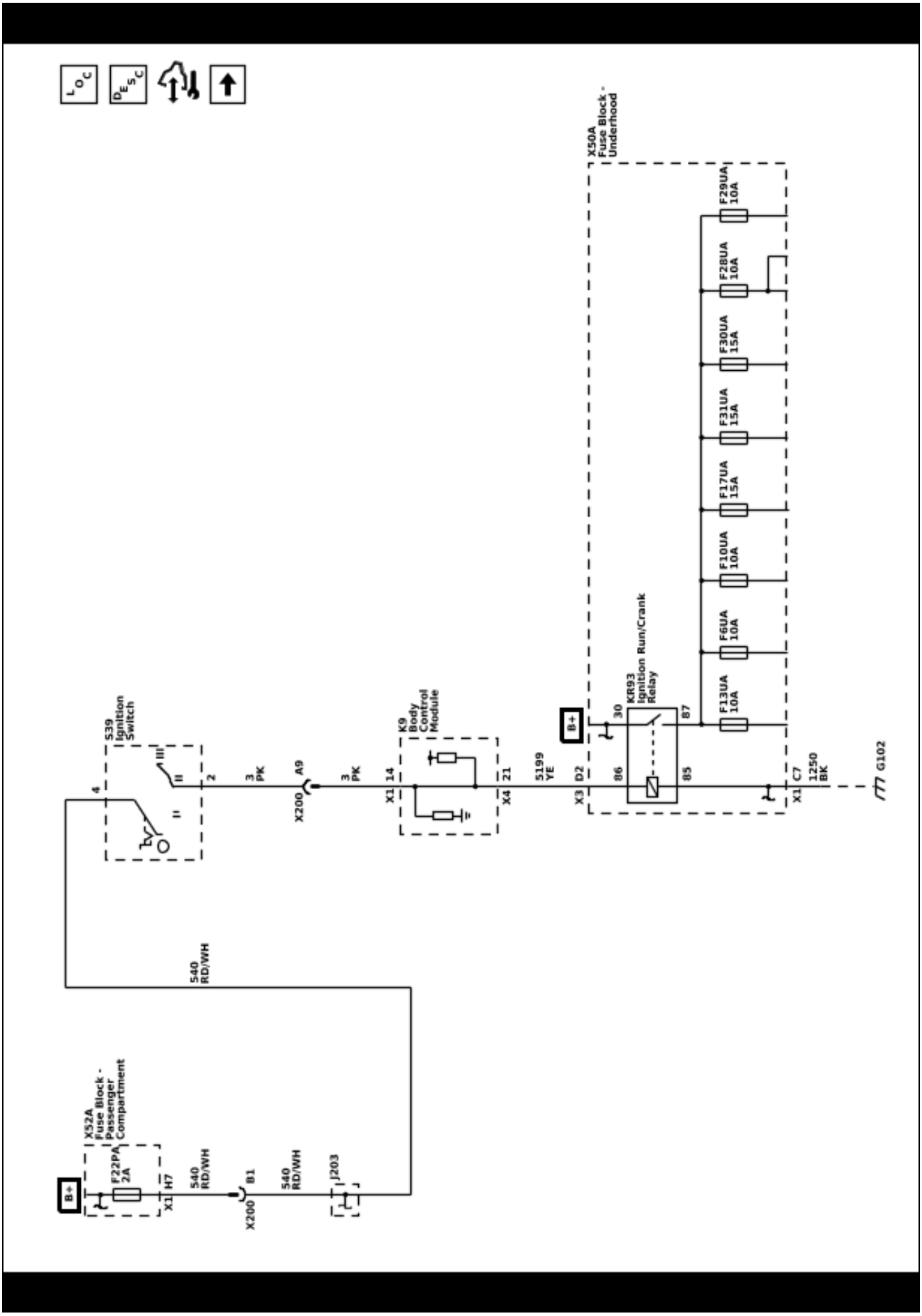
Power Distribution Schematics (Fuses F3PA, F4PA, F5PA, F7PA, and F8PA)



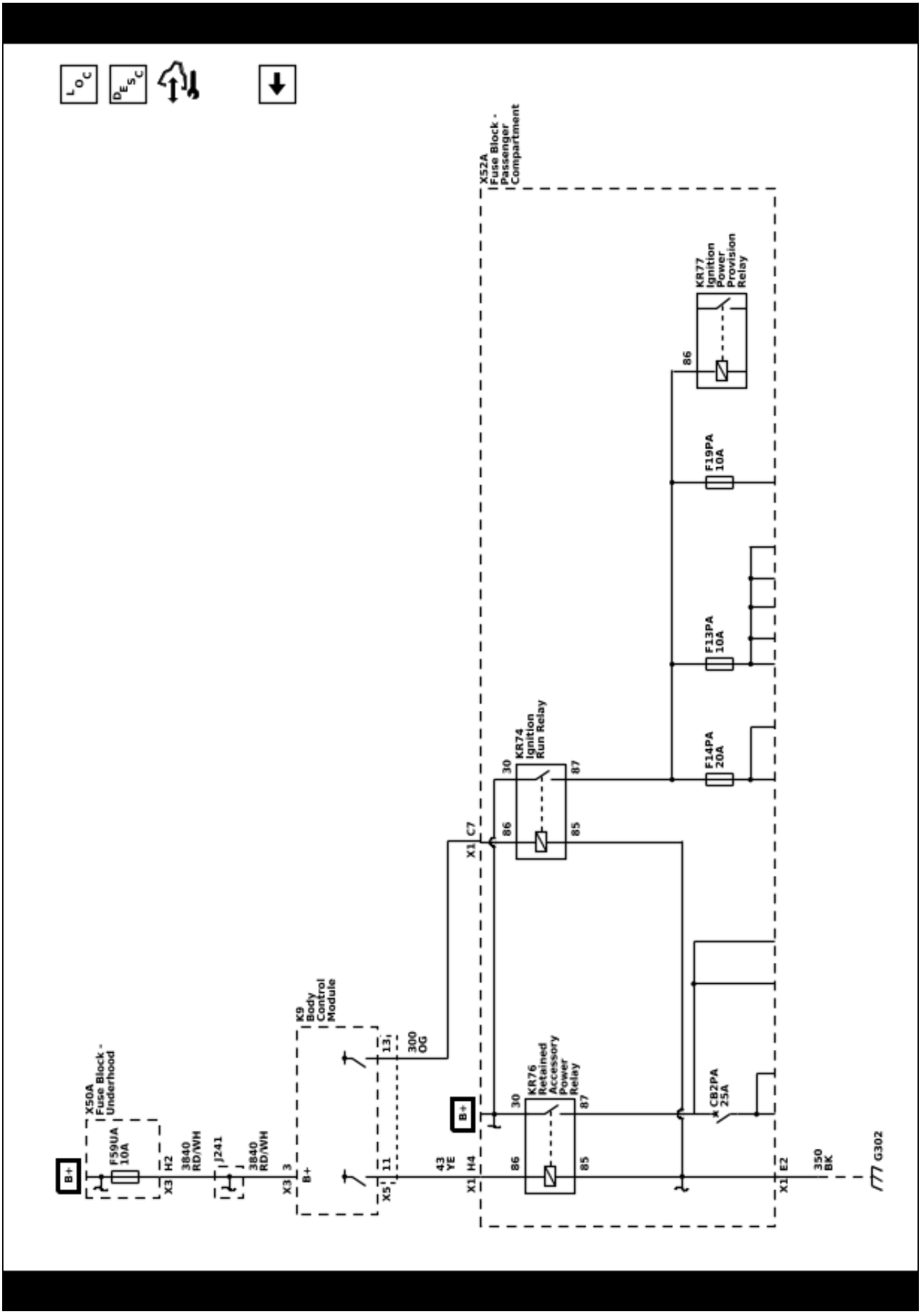
Power Distribution Schematics (Fuse F30PA)



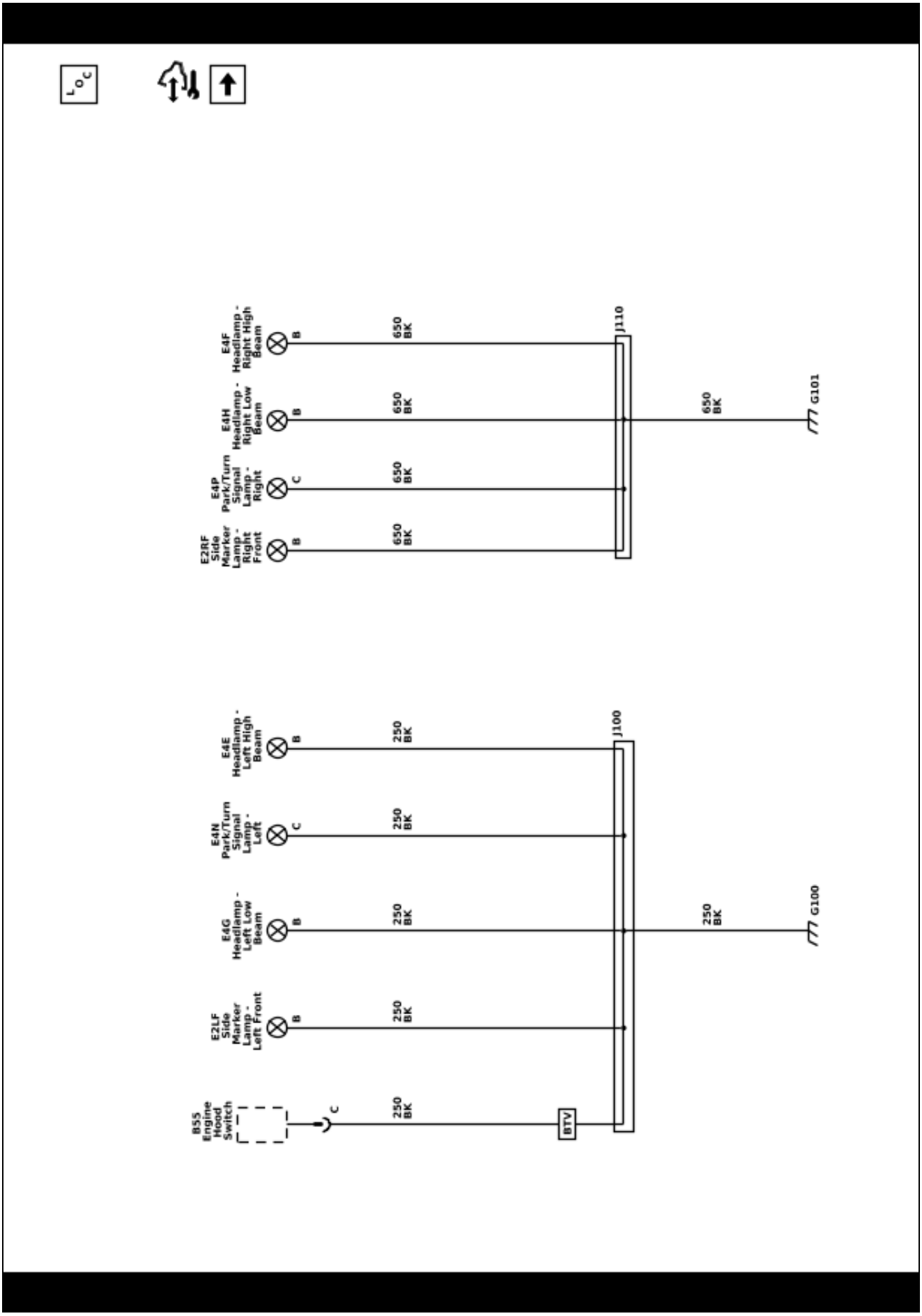
Power Moding Schematics (Ignition Run/Crank Relay)



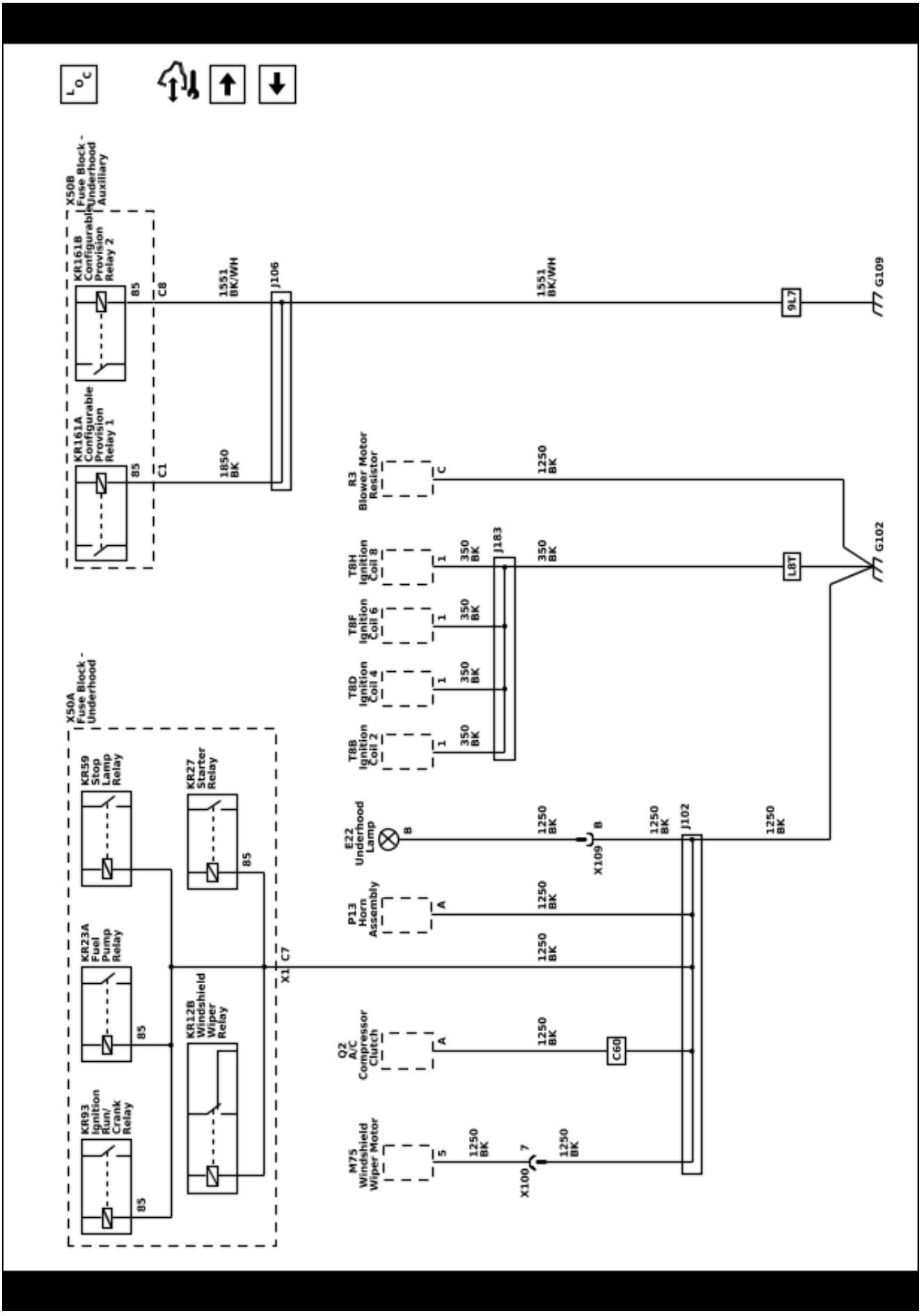
Power Moding Schematics (Retained Accessory Power Relay and Ignition Run Relay)



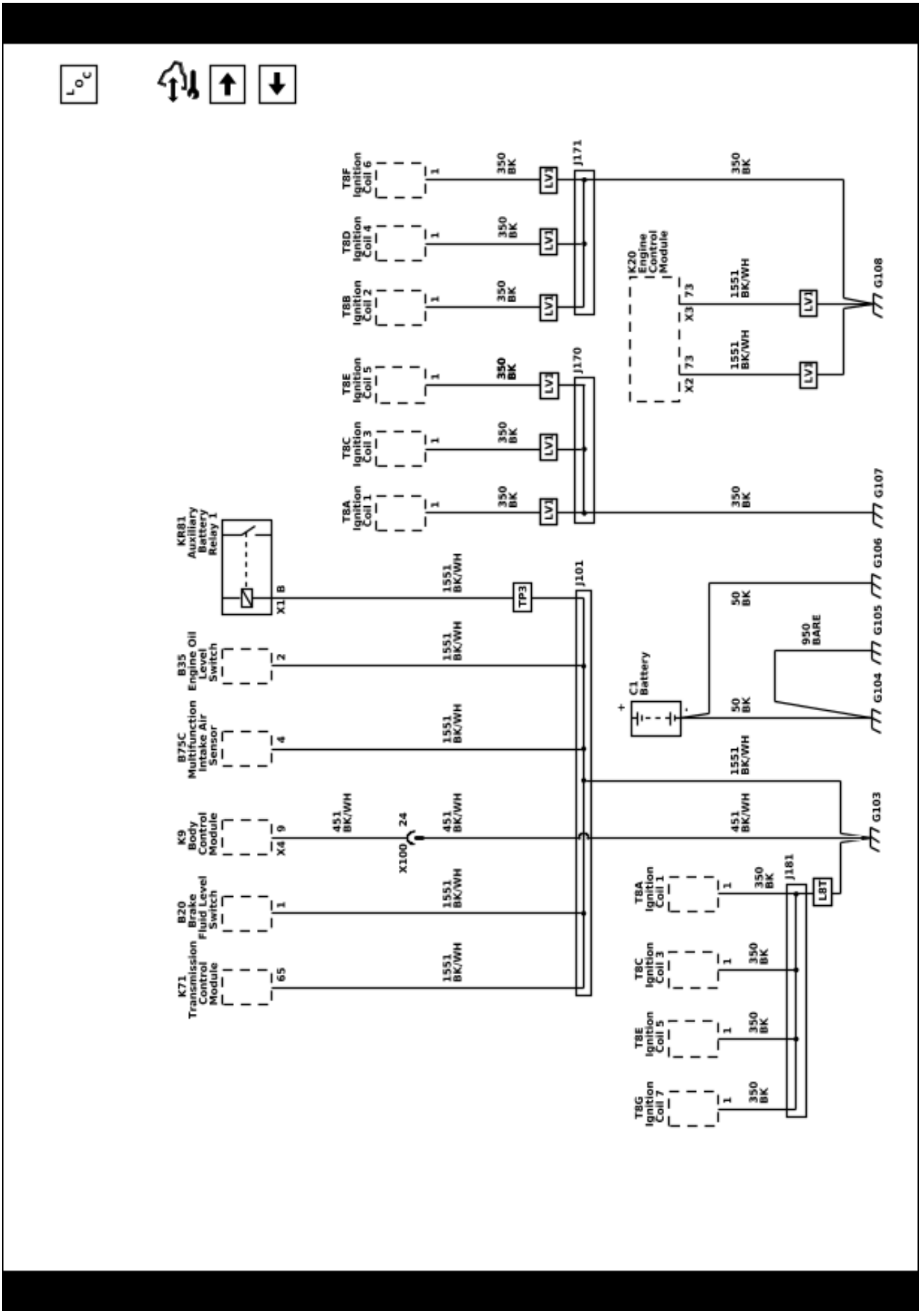
Ground Distribution Schematics (G100 and G101)



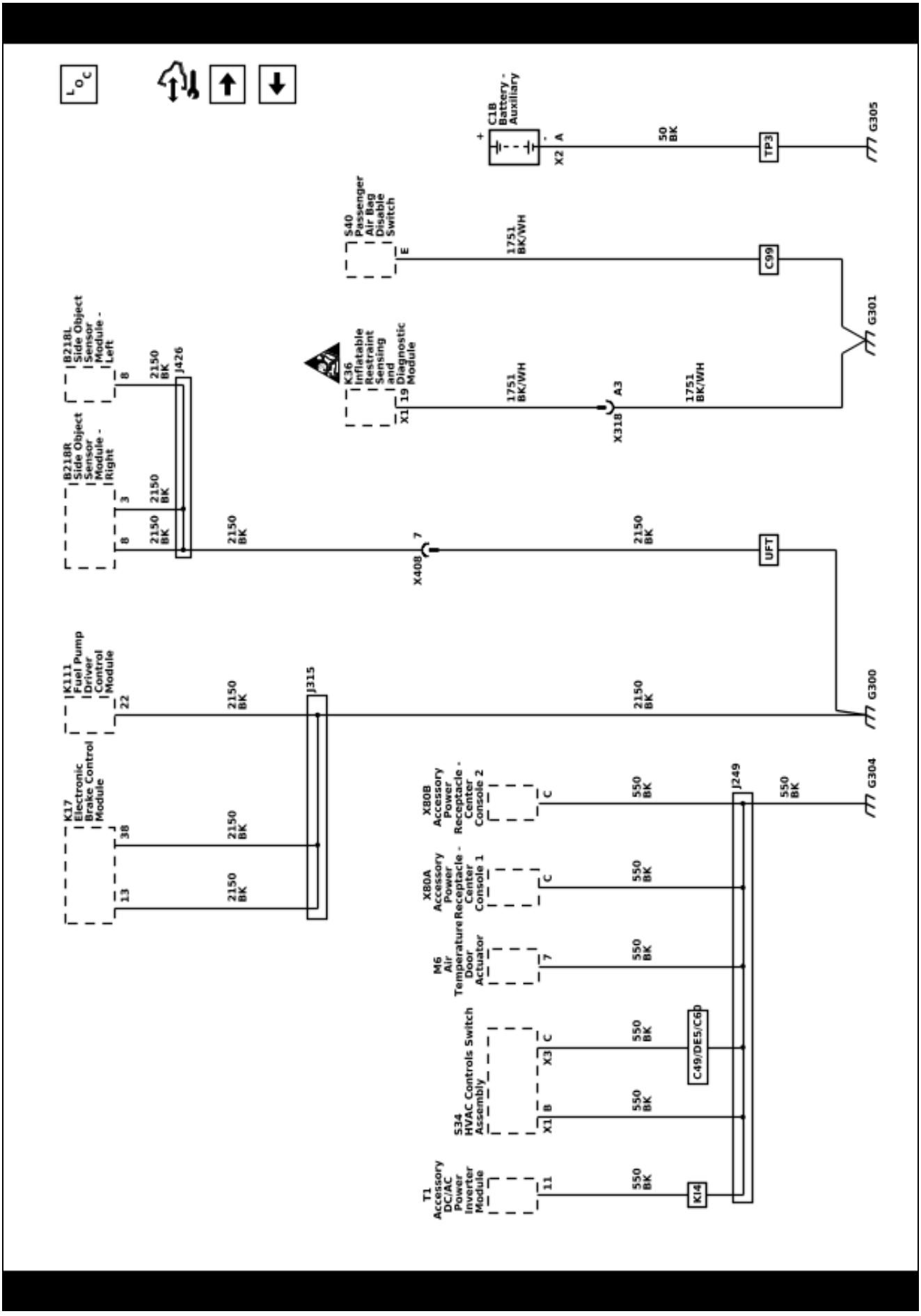
Ground Distribution Schematics (G102 and G109)



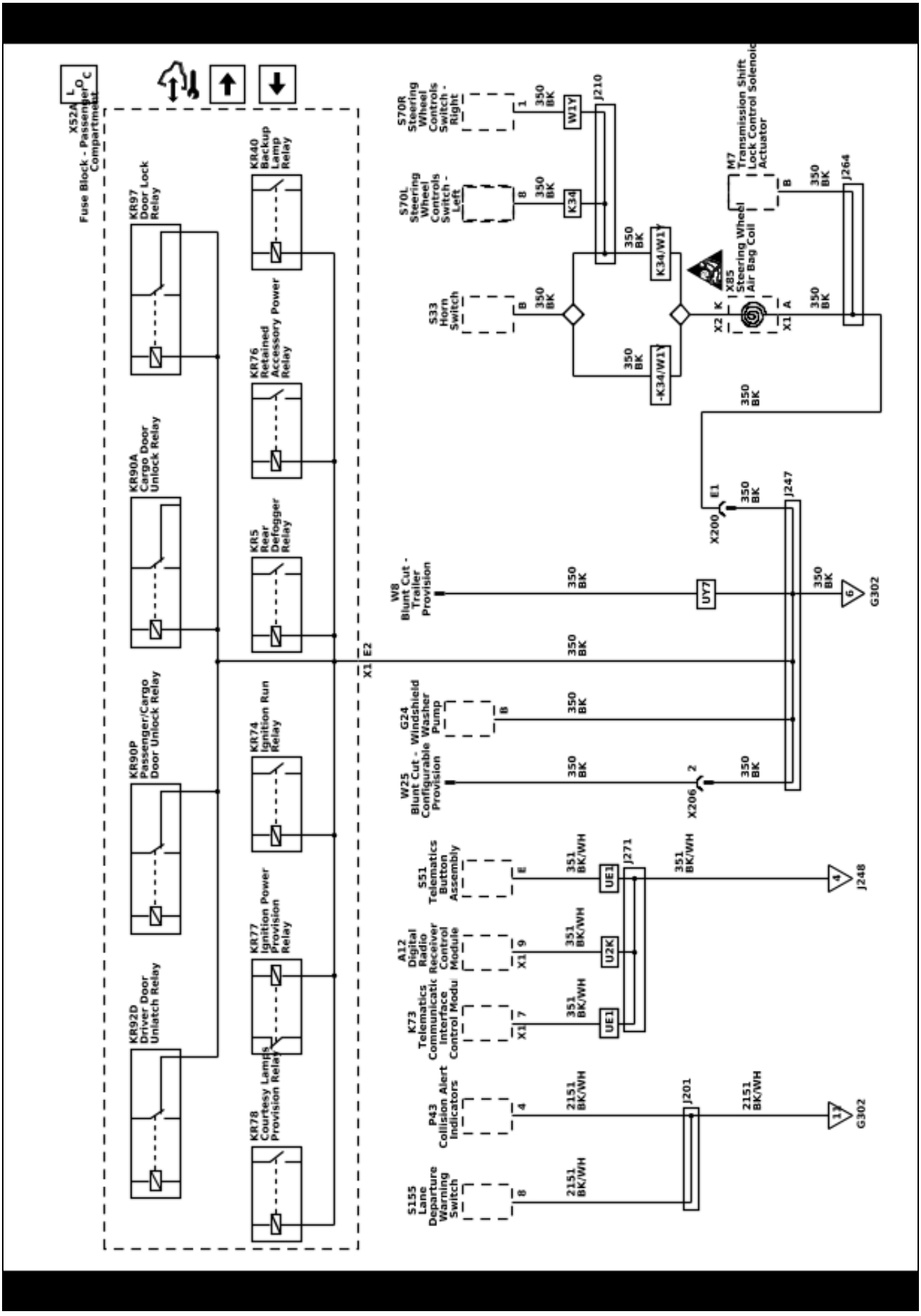
Ground Distribution Schematics (G103, G104, G105, G106, G107 and G108)



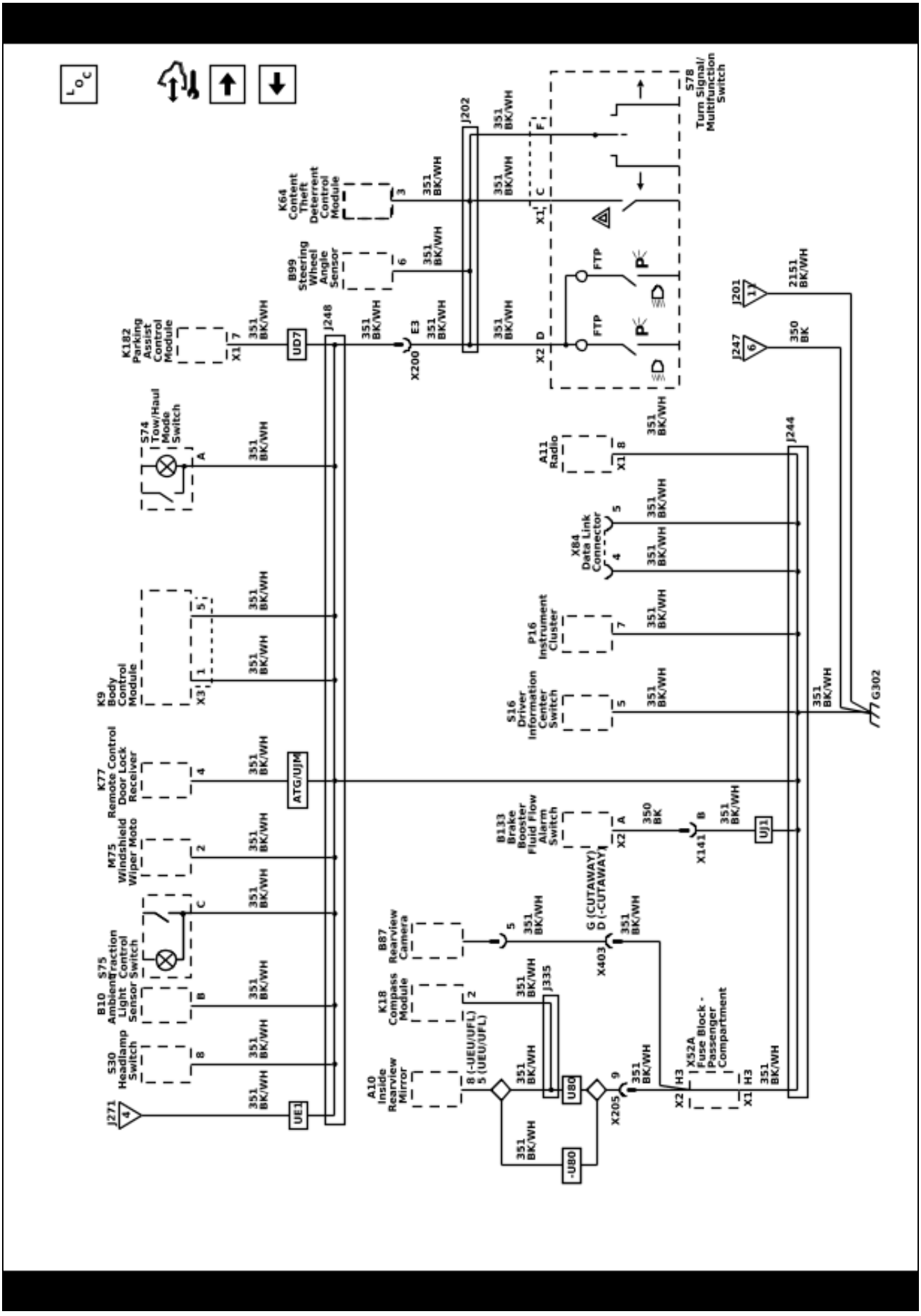
Ground Distribution Schematics (G300, G301, G304, and G305)



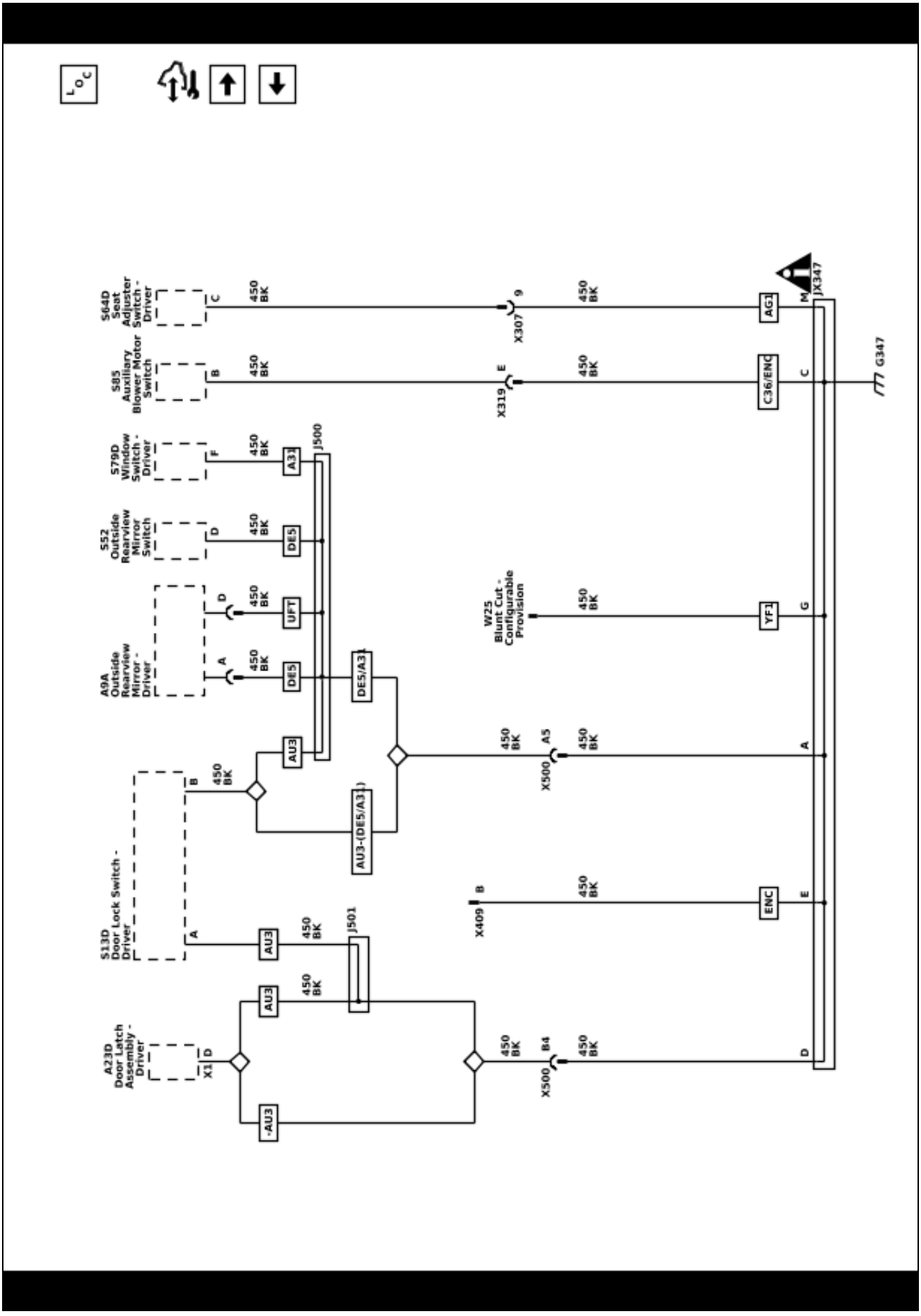
Ground Distribution Schematics (G302 - 1 of 2)



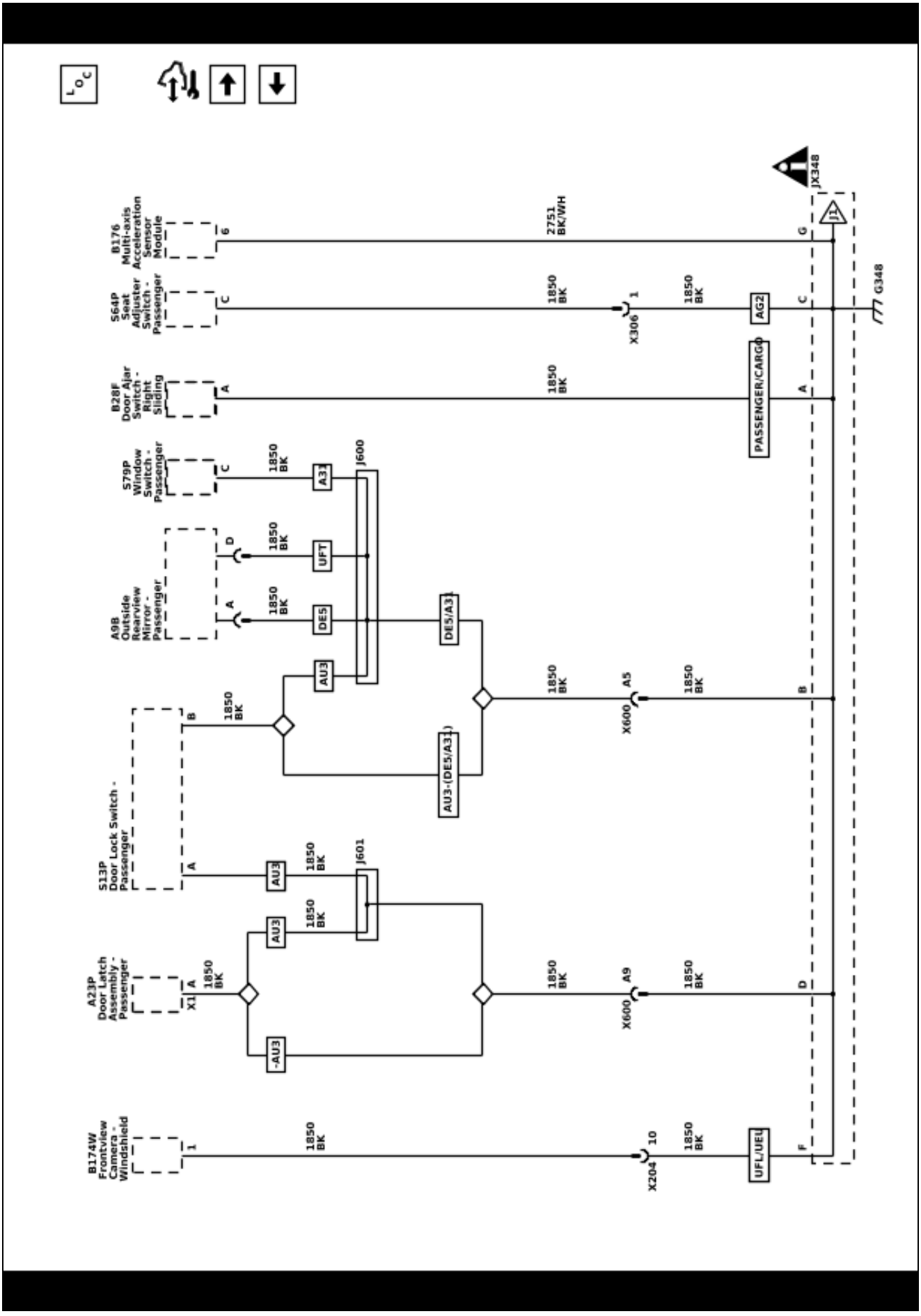
Ground Distribution Schematics (G302 - 2 of 2)



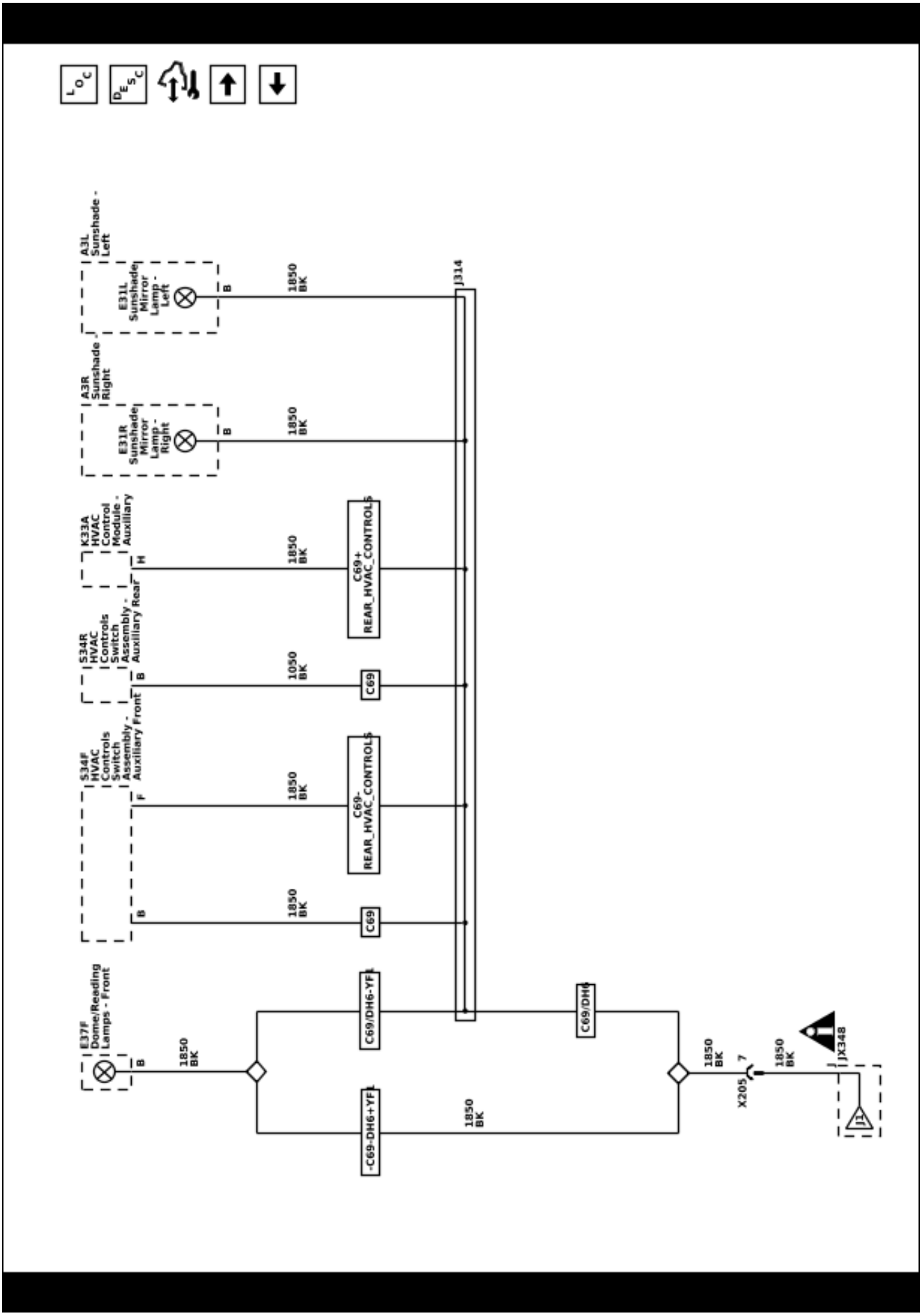
Ground Distribution Schematics (G347)



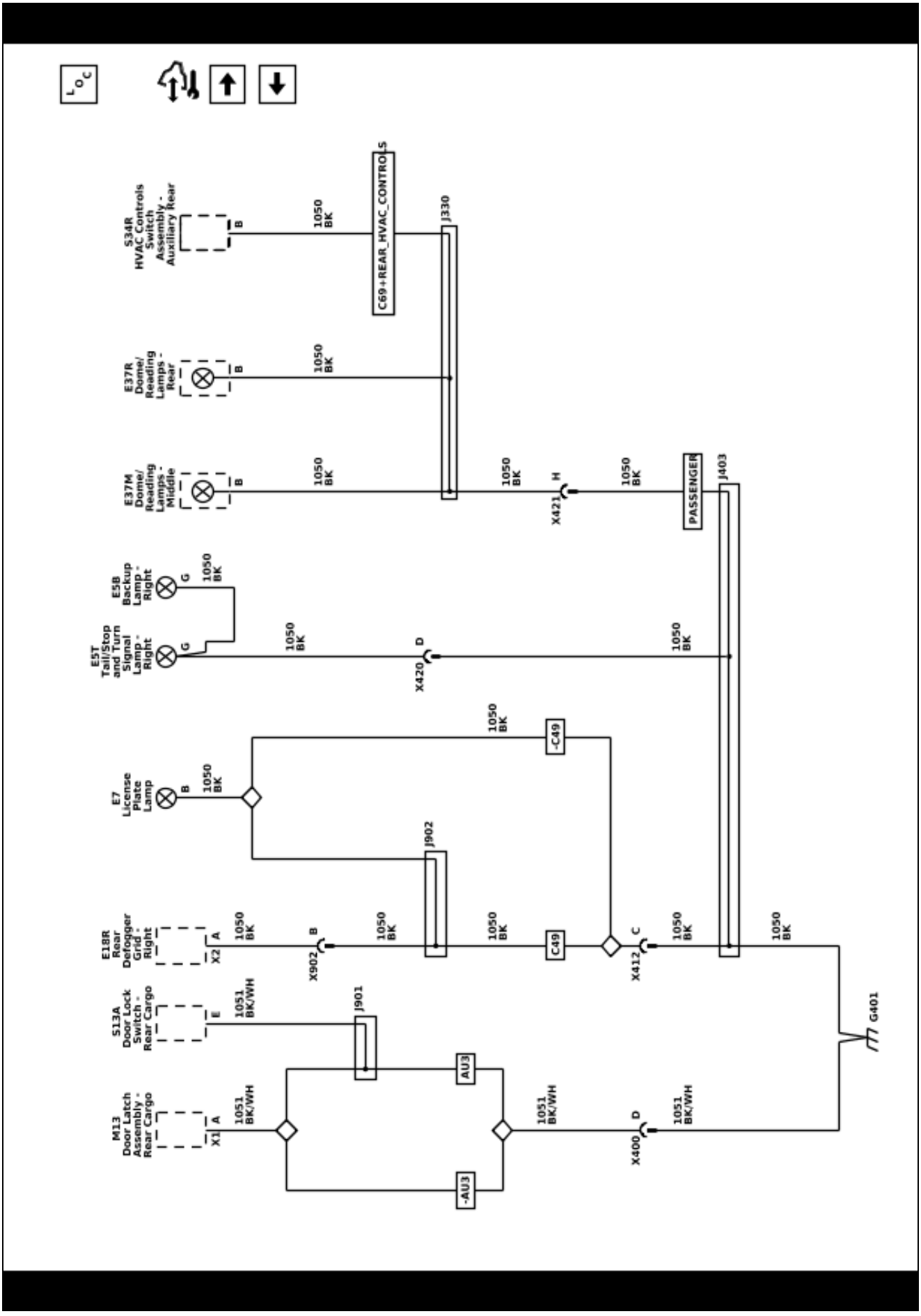
Ground Distribution Schematics (G348 - 1 of 2)



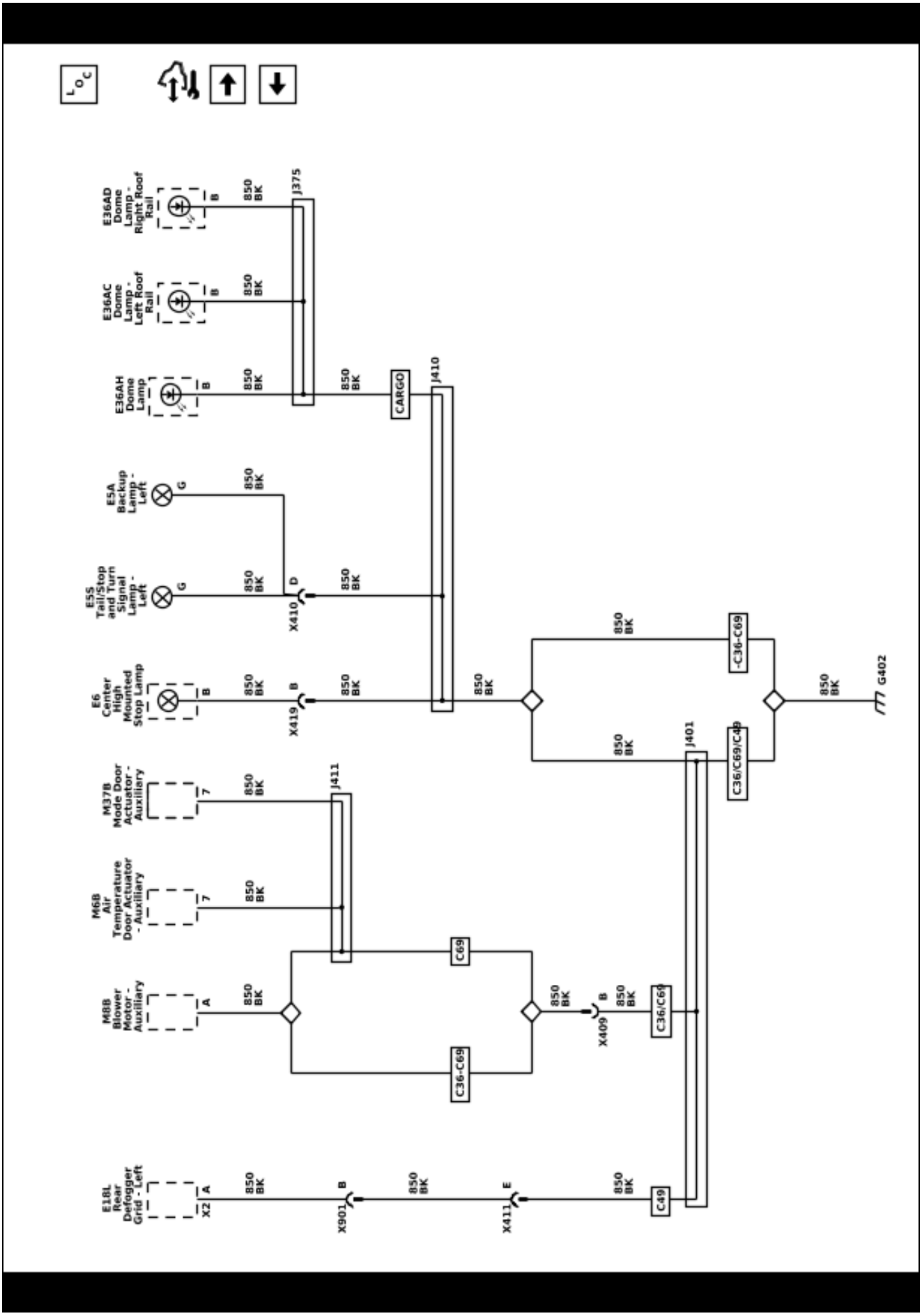
Ground Distribution Schematics (G348 - 2 of 2)



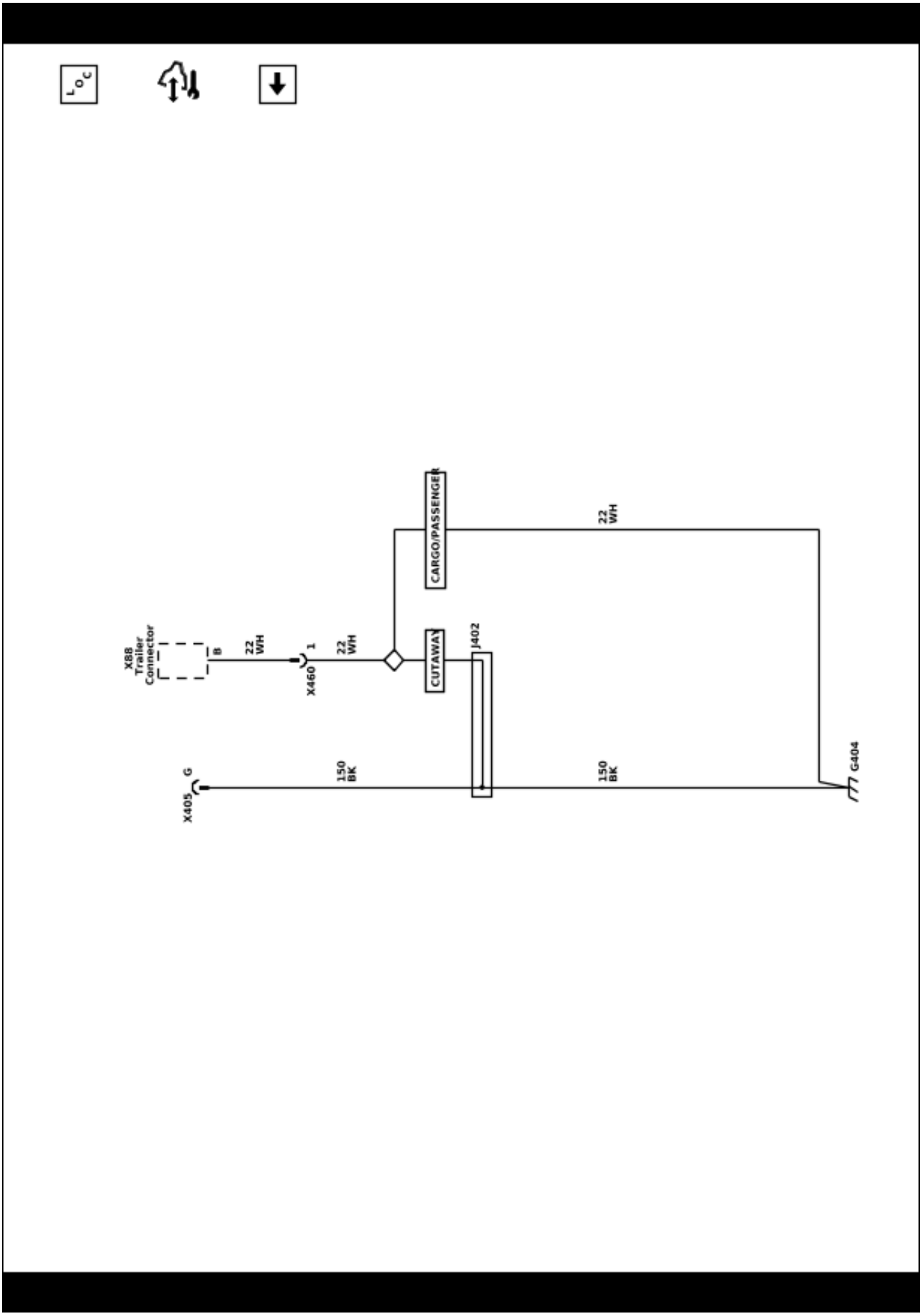
Ground Distribution Schematics (G401 - Passenger/Cargo)



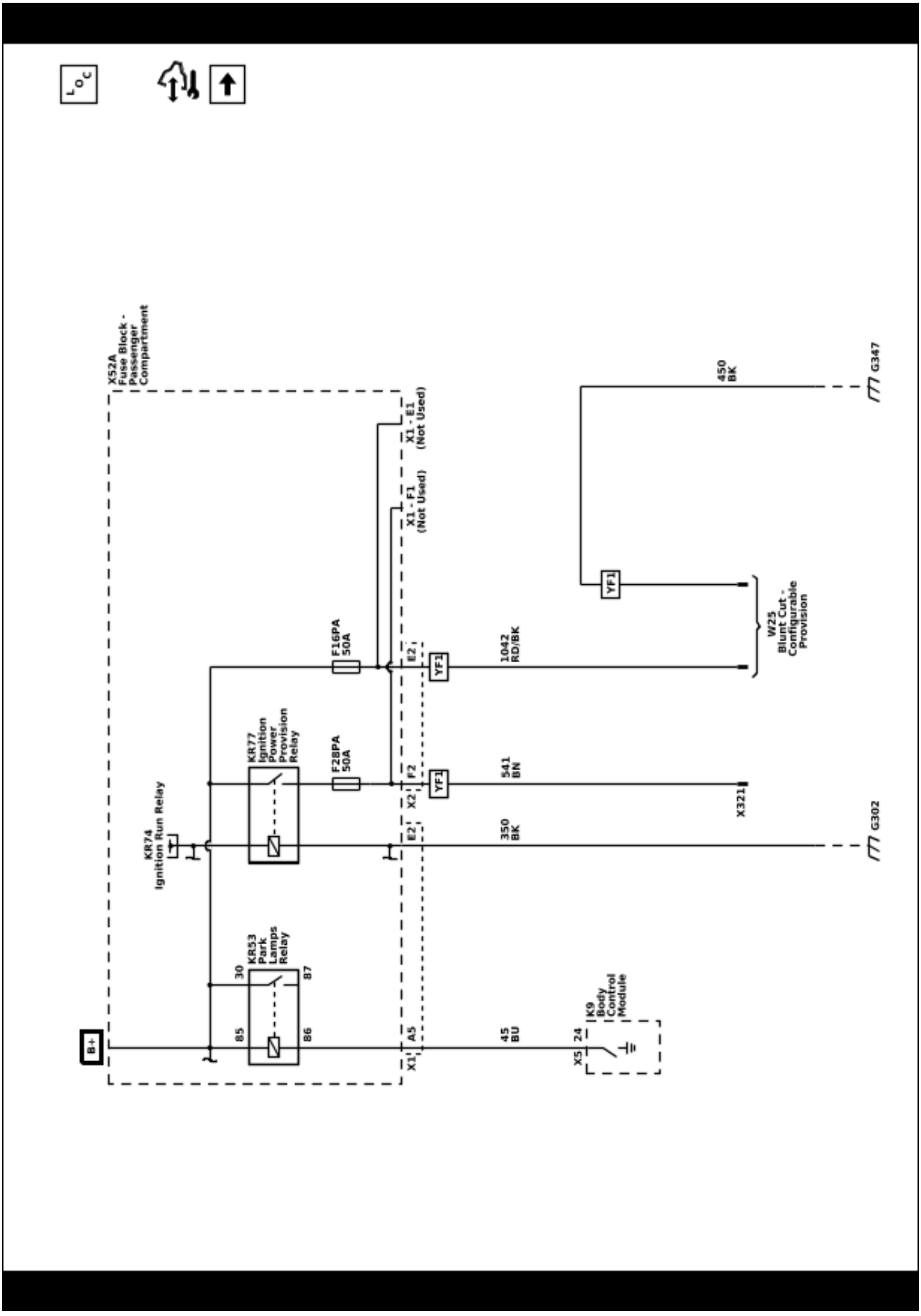
Ground Distribution Schematics (G402 - Passenger/Cargo)



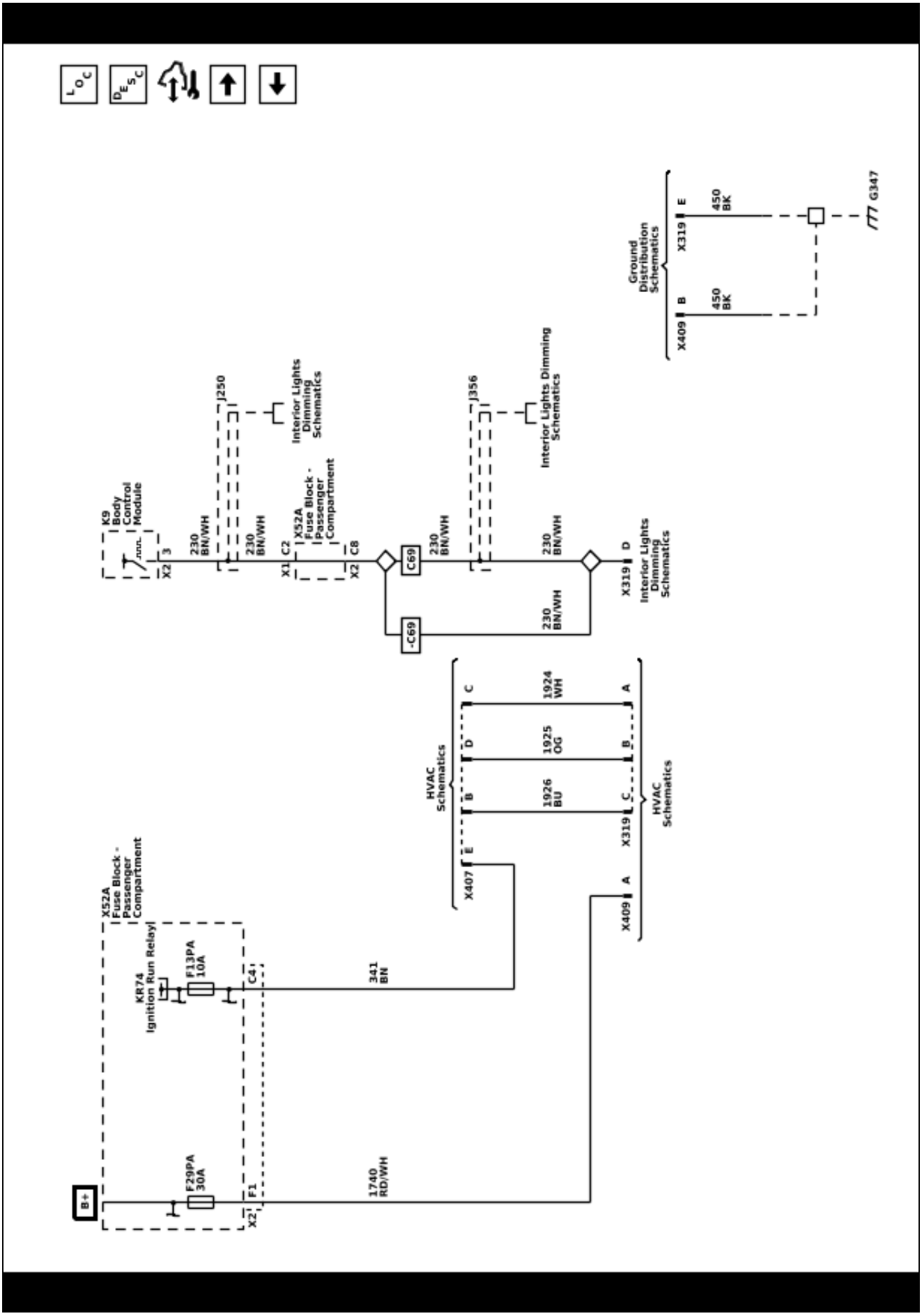
Ground Distribution Schematics (G404)



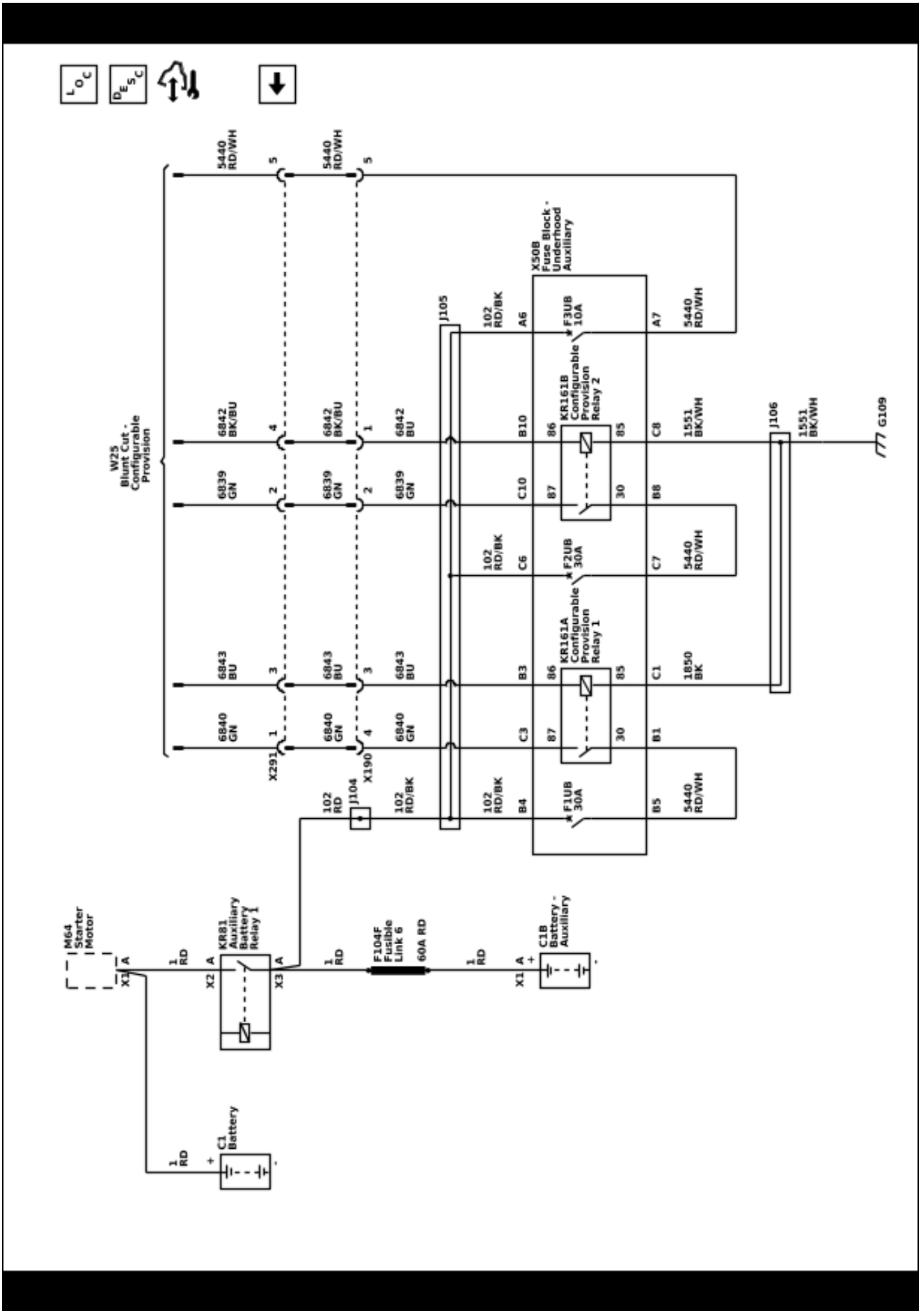
Upfitter Provision Schematics (Power, Ground, and Relay Controls)



Upfitter Provision Schematics (Rear Heat Auxiliary (ENC))



Upfitter Provision Schematics (Upfitter Fuse Block (9L7))



Description and Operation

Power Mode Description and Operation

Serial Data Power Mode Master

Power to many of this vehicles circuits is controlled by the module that is designated the power mode master (PMM). This vehicles PMM is the body control module (BCM). The BCM has multiple B+ circuits that feed into it. Each of those circuits are partitioned within the controller to drive certain outputs of the vehicle's body functions. An open or short in any one of the B+ circuits may induce multiple codes/or a section of non-functionality within the BCM with the rest of the BCM functioning normally. In this case it is usefull to refer to the power distribution schematics to determine if the non-functional partition of the controller shares a common B+ circuit. The ignition switch is a low current switch with multiple discrete ignition switch signals to the PMM for determination of the power mode that will be sent over the serial data circuits to the other modules that need this information. The PMM will also activate relays and other direct outputs of the PMM as needed. The PMM determines which power mode (Off, Accessory, Run, Crank Request) is required, and reports this information to other modules via serial data. Modules which have switched voltage inputs may operate in a default mode if the PMM serial data message does not match what the individual module can see from its own connections.

The PMM receives ignition switch signals to identify the operators desired power mode. The PMM Power Mode Parameters table below illustrates the correct state of these input parameters (circuits) in correspondence to the ignition switch position:

PMM Power Mode Parameters

Ignition Switch Position	Power Mode Transmitted	Ign. Off / Run / Crank (Run Crank Ignition 1 Voltage Circuit)	Ignition Accessory / Run (Accessory Voltage Circuit)	Ignition Run / Crank (Ignition 1 Voltage Circuit)
Off Key Out	Off	Key Out/ACC	Inactive	Inactive
Off Key IN	Off	Key In/Off	Inactive	Inactive
Accessory	Accessory	Key Out/ACC	Active	Inactive
Run	Run	Run	Active	Active
Start	Crank Request	Crank	Inactive	Active

Relay Controlled Power Mode

The body control module (BCM) uses the discrete ignition switch inputs Run/Crank Ignition 1 Voltage, Accessory Voltage, and Ignition 1 Voltage, to distinguish the correct power mode. The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The RAP relay remains on for a timed period after the Ignition key is removed. Refer to *Retained Accessory Power Description and Operation on page 6-462* for more information on the retained accessory power (RAP) function.

BCM Awake/Sleep States

The body control module (BCM) is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal

- Headlamps ON
- Key-in-ignition
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

The BCM will enter a sleep state when all of the following conditions exist:

- The ignition switch is OFF, key out.
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

Retained Accessory Power Description and Operation

Retained Accessory Power (RAP)

The retained accessory power (RAP) system allows specific vehicle functions to operate for a specific amount of time after the ignition switch is turned OFF. The BCM monitors the ignition switch position, battery condition, and each door ajar/open switch status to determine whether RAP should be initiated or terminated. RAP is controlled with 2 different methods; serial data and relay control. Some modules receive a RAP message over the serial data circuits. Serial data controlled RAP is deactivated as required by their modules RAP power mode operation. Other subsystems are activated directly by the BCM through a RAP relay. Components and systems that are active in RAP are also activated anytime the ignition is any position other than OFF regardless of the door switch signals. The RAP relay is located in the body fuse block, is grounded at G302, and is controlled by the rap relay coil control circuit from the BCM.

Relay Controlled RAP

The BCM keeps the RAP relay energized during all power modes, except Off-Awake and Crank. The relay is also energized for approximately 10 minutes after shutting the ignition OFF and removing the key, providing no door is opened.

Relay controlled RAP will end when one of the following conditions is met:

- The BCM receives an input from any door ajar switch indicating the opening of any door after the ignition key is out of the ignition.

Important: If the BCM is receiving any door ajar signal from those switches when the ignition key is turned OFF, RAP will not initiate.

- The BCM internal timer for the RAP expires after approximately 10 minutes.
- The BCM detects a decrease in battery capacity below a prescribed limit.

The power window system is powered by the RAP relay during the retained accessory power (RAP) power mode.

Serial Data Controlled RAP

RAP systems controlled by serial data are as follows:

Radio

Radio RAP activation/termination is the same as relay operation with 1 exception; the only door switch that will turn off the radio during RAP is the driver door open switch.

Section 7

Transmission

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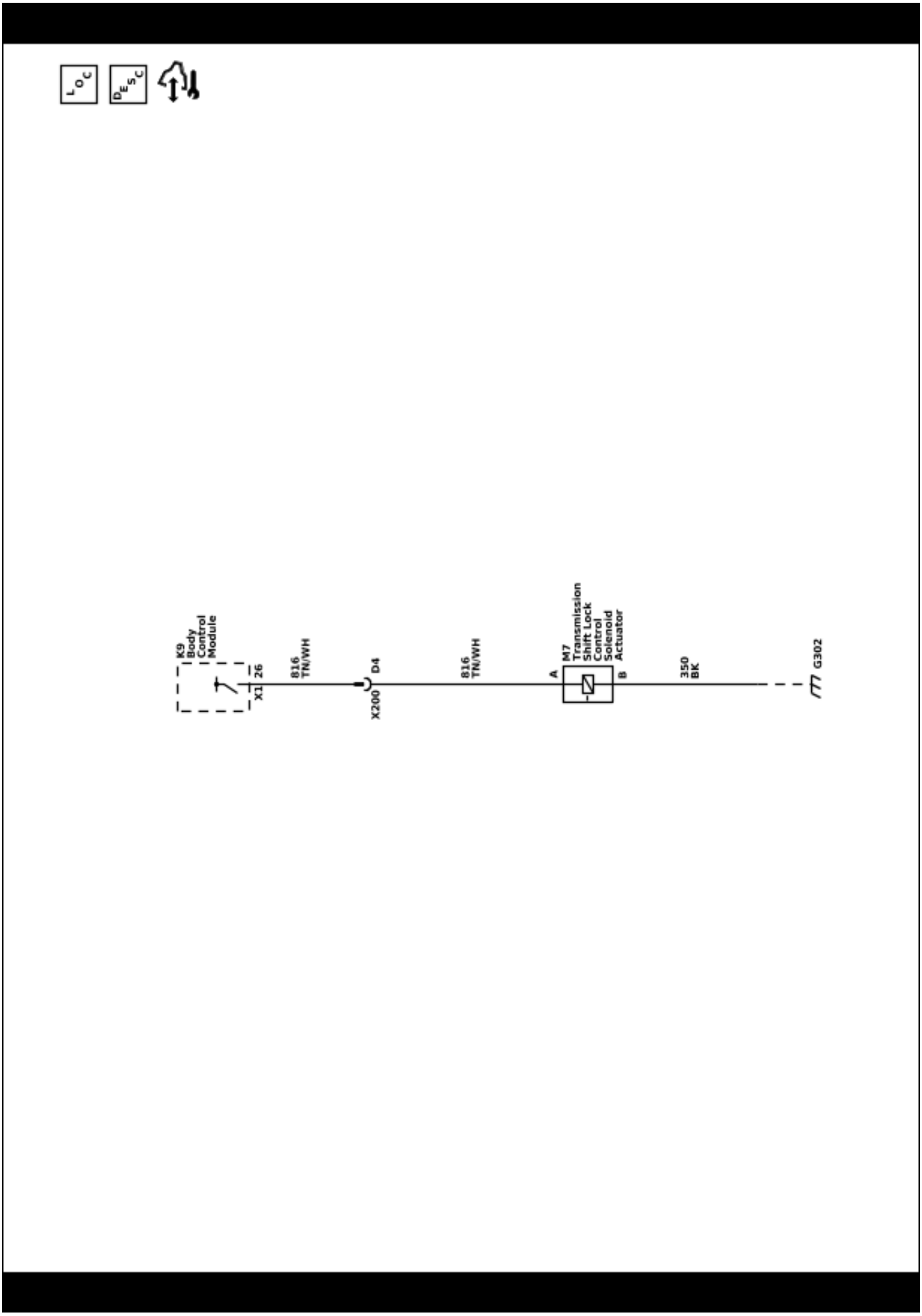
Shift Lock Control

Schematic and Routing Diagrams

Shift Lock Control Schematics (Shift Lock Control)



Description and Operation

Automatic Transmission Shift Lock Control Description and Operation

The automatic transmission shift lock control system is a safety device that prevents an inadvertent shift out of PARK when the engine is running. The driver must press the brake pedal before moving the shift lever out of the PARK position. The system consists of the following components:

- The automatic transmission shift lock solenoid (serviced as the automatic transmission shift lock actuator), as well as the body control module (BCM) and the engine control module (ECM). The shift lock solenoid is located within the floor shift control assembly with vehicles equipped with floor shift.
- The BCM controls the voltage to the shift lock control solenoid through the shift lock control solenoid controlled voltage circuit. The following conditions must be met before the BCM will remove voltage from the shift lock solenoid:
  - The ignition is in the ON position.
  - The engine control module (ECM) sends an input via GMLAN serial data to the BCM indicating the transmission is in the PARK position.
  - The BCM determines the brake pedal is applied according the brake pedal position.

Since the shift lock control solenoid is permanently grounded, the BCM supplies voltage to the automatic transmission shift lock control solenoid, mechanically locking the shift lever in the PARK position as the solenoid energizes. When the brake pedal is applied, the BCM turns the control voltage output of the shift lock control solenoid OFF, de-energizing the shift lock control solenoid. The de-energized solenoid releases the mechanical lock allowing the driver to move the shift lever out of the PARK position. When the transmission is out of the PARK position, the shift lock control solenoid remains de-energized.

Note: If equipped with push button start, the BCM supplies voltage to the automatic transmission shift lock control solenoid, mechanically unlocking the shift lever in the PARK position as the solenoid energizes.

During remote start operation, the BCM will energize the shift lock control circuit, locking the shift lever in the PARK position.

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